

US EPA RECORDS CENTER REGION 5



483712

SCREENING SITE INSPECTION REPORT  
FOR

BENDIX AUTOLITE CORP  
FOSTORIA, OHIO

U.S. EPA ID: OHD066046228

SS ID: NONE

TDD: F05-9003-039


PAN: FOH0620SA

JUNE 17, 1991

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## 1. INTRODUCTION

Ecology and Environment, Inc. (E & E), Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Bendix Autolite Corp. (BAC) site under contract number 68-01-7347. C.C. Johnson and Malhotra, P.C. (CCJM), a subcontractor to E & E under the above contract, was responsible for conducting this investigation.

The BAC site was initially discovered in 1972 by the Ohio Department of Health (ODH) through a permit application to operate an existing spark plug manufacturing facility (ODH 1972). The application was submitted by Ford Motor Company and is dated August 17, 1972. The site was evaluated in a preliminary assessment (PA), prepared by Timothy J. Maley of E & E. The PA is dated August 28, 1985 (U.S. EPA 1985).

FIT prepared an SSI work plan for the BAC site under technical directive document (TDD) F05-8706-233, issued in July 1987. The work plan for the BAC site was approved in March 1990. The SSI of the BAC site was conducted on August 21 and 22, 1990 under TDD F05-9003-039 issued in March, 1990.

The FIT SSI included an interview with site representatives, a reconnaissance inspection of the site, the collection of six soil samples and five groundwater samples, and photographing current site conditions and sampling locations.

This report has been prepared following currently available guidance. The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgment factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.

The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

## 2. SITE BACKGROUND

### 2.1 INTRODUCTION

This section presents information obtained during the SSI work plan preparation, the interview with site representative, and the reconnaissance inspection of the site.

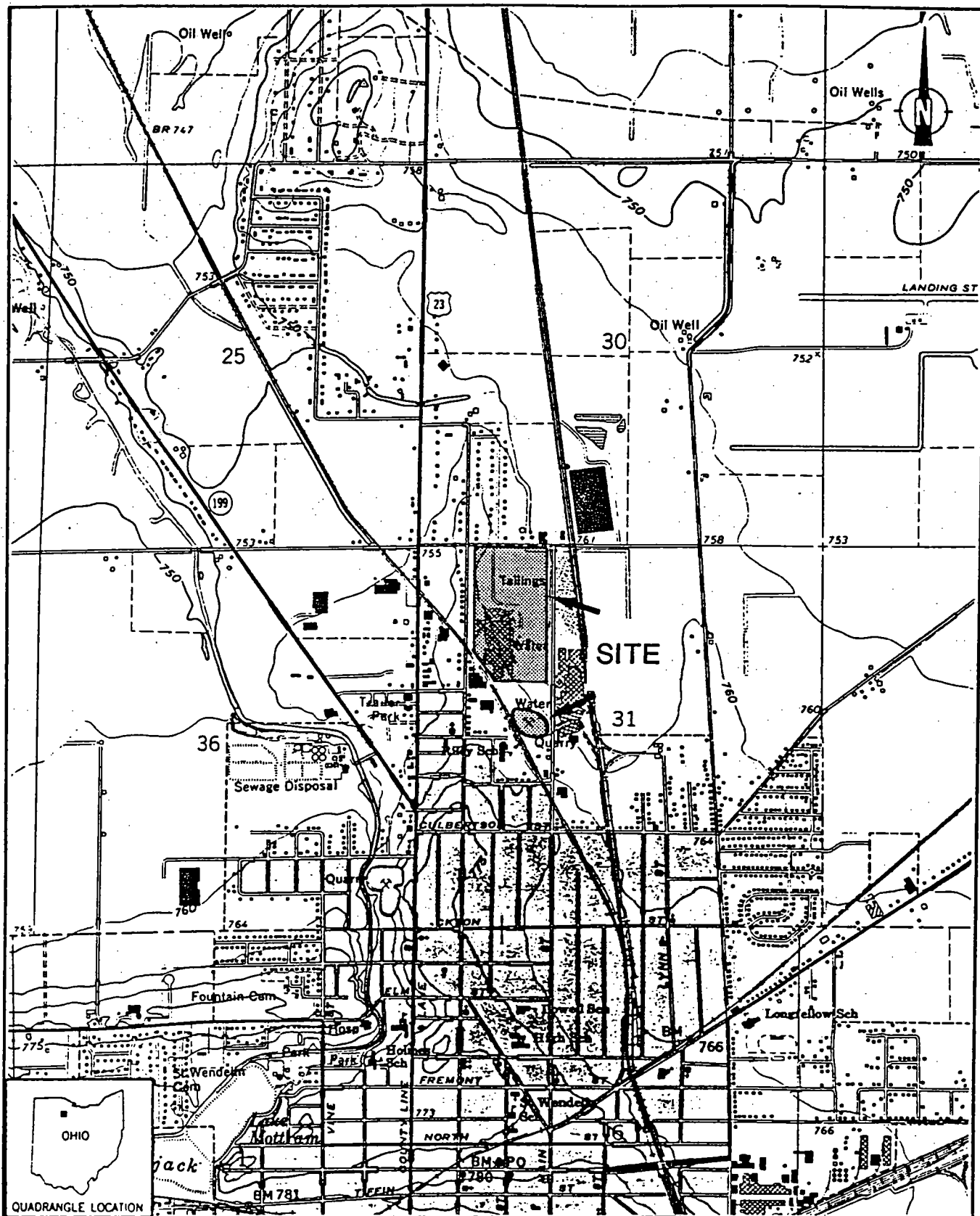
### 2.2 SITE DESCRIPTION

The BAC site consists of approximately 55 acres and is located in an industrial area in northern Fostoria in Seneca County, Ohio (SE1/4NW1/4 sec. 31, T.3N; R.13E.) (see Figure 2-1 for site location). The site is an active spark plug and oxygen sensor manufacturing facility. The site is located at 1600 North Union Street, Fostoria, Ohio 44830.

A 4-mile radius map of the BAC site is provided in Appendix A.

### 2.3 SITE HISTORY

Spark plugs have been manufactured at the BAC site since 1936 (Autolite 1990). Operations at the site prior to 1936 are not known. The site was owned and operated by Electric Autolite until 1961 (Autolite 1990, Glenn et al. 1990). Ford Motor Company purchased the site in 1961 and continued operations until 1973. Bendix Corporation purchased the site in 1973 and operated on-site until 1983 (Autolite 1990). Allied Signal, Inc., purchased the site in 1983 and is the current owner. Autolite, a division of Allied Signal, Inc., has operated on-site since 1983 (Glenn et al. 1990).



SOURCE: USGS, Fostoria, OH Quadrangle, 7.5 Minute Series, 1960, photorevised 1972.



FIGURE 2-1 SITE LOCATION

Autolite manufactures spark plugs and oxygen sensors for small engines, such as those found in passenger automobiles, and trucks. Raw ceramic powders and steel bar stock are used in the manufacture of spark plugs. The ceramic powder is formed, fired, and glazed. The steel bar stock is machined, coated, and washed. The ceramic and metal parts are then assembled into the final product (Chester Engineers, Inc. 1984; U.S. EPA 1985).

The wastewater produced during manufacturing operations is regulated by U.S. EPA electroplating standards and metal finishing standards. Wastewater is discharged to the city of Fostoria sanitary sewer system through three underground outfalls (Chester Engineers, Inc. 1984).

To comply with federal regulations implemented in 1972, Ford Motor Company applied to ODH for permits to conduct spark plug and steel spark plug shell degreasing at the BAC site (ODH 1972). The degreasing operation was already underway at the facility at the time Ford Motor Company submitted its application. Trichloroethylene (TCE) was being used as the degreasing agent at a rate of approximately 430 pounds per hour (ODH 1972). It is not known whether any permits were issued.

On August 13, 1980, Bendix submitted a RCRA section 3010 form to notify U.S. EPA about hazardous waste activity at the BAC site. This form stated that the hazardous wastes generated on-site consisted of spent halogenated solvents (mainly TCE) from degreasing operations, and spent cyanide solutions from metal heat treating operations (U.S. EPA 1980; Ohio Environmental Protection Agency [OEPA] 1983). Approximately 21,000 pounds of spent halogenated solvents and 4,200 pounds of spent cyanide solutions were generated each year. These wastes were stored in drums (U.S. EPA 1980a). According to a RCRA interim status inspection report prepared by OEPA, the facility qualified as a generator only; these wastes could not be treated on-site or stored for more than 90 days (OEPA 1983).

On May 8, 1984, Chester Engineers, Inc. of Coraopolis, Pennsylvania prepared a baseline monitoring report to determine Autolite's compliance with the U.S. EPA electroplating and metal finishing point source standards. According to this report, samples taken from the on-site

outfalls to Fostoria sanitary sewer system revealed the presence of TCE. At that time TCE was not used in large quantities at the BAC site (Chester Engineers, Inc. 1984).

On May 24, 1984 Autolite informed OEPA that TCE was detected in two on-site process water wells at levels of 12 parts per million (ppm) in one well and 0.4 ppm in the other (Autolite 1984). Subsequently, the Seneca County Department of Public Health (SCDPH), in conjunction with Autolite, sampled the process wells, the on-site retention basin (located in the northern section of the site), an off-site quarry (located southeast of the site), and five residential wells located near the site. These samples were analyzed for volatile organic compounds (VOCs) and metals. TCE was detected in both process water wells (maximum concentrations of 20,529 parts per billion [ppb] and 800 ppb). The compounds 1,1,1-trichloroethane and 1,2-transdichloroethene were also detected in the process water well samples, with concentrations of 378 ppb and 23 ppb. TCE was also detected at a concentration of 2.5 ppb in a private residential well located approximately 1/8 mile north of the site (Autolite 1984a).

On November 27, 1984, as required by section 103(c) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980, Autolite submitted a Notification of Hazardous Waste Site (Form 8900-1) to U.S. EPA. The notification was filed because of the contaminated process water wells at the BAC site (Autolite 1984b; U.S. EPA 1984).

On December 3, 1984, SCDPH advised about 100 residents living immediately north of the BAC site to use bottled water for drinking. This was a response to the detection of TCE in some of the residential well samples collected from the area north of the site. These samples were collected on November 30, 1984 by SCDPH (SCDPH 1984; Autolite 1984c). Autolite supplied the bottled water to the residents (Autolite 1984c).

In October 1984, Autolite hired T.A. Gleason and Associates (TAGA), a Cincinnati-based environmental and geotechnical engineering consulting firm, to conduct a comprehensive groundwater study at the BAC site (Autolite 1984c; Autolite 1990). These investigations included the

installation of test borings and monitoring wells, and the sampling of subsurface soils. TAGA also conducted extensive groundwater sampling in the area (TAGA 1987). During this study, VOC concentrations ranging as high as 20,000 ppb were detected in BAC monitoring wells and process wells. VOCs were also detected (with concentrations as high as 20,700 ppb) in off-site industrial wells located southeast and southwest of the BAC site. Water samples collected from 78 residential wells located north and northwest of the BAC site were also analyzed. VOCs were detected in 18 of the 78 residential wells, with concentrations ranging from 1 to 52 ppb (TAGA 1987).

In an effort to determine the extent of VOC contamination in Fostoria's groundwater supply, OEPA conducted a survey of area industries in 1985; this survey addressed solvent usage and operating practices at various industries (OEPA 1985; TAGA 1987). Autolite responded to the survey and stated that the facility generated 1,1,1-trichloroethane (approximately 1,650 gallons per year), 2-butanone (approximately 50 gallons per year), and a waste sodium hydroxide solution (approximately 8,600 gallons per year). The company had also previously generated approximately 55 gallons of waste cyanide each year, but at some point before the survey this practice ceased when Autolite changed to a different solvent. These hazardous wastes were transported off-site to a U.S. EPA-approved facility for disposal. According to the file information, no treatment, waste storage beyond 90 days, or disposal occurred on-site. By 1985 the solvents being used at the facility were 1,1,1-trichloroethane, mineral spirits, TCE, 2-butanone, benzene, dioctyl phthalate. All spent solvents used at the BAC site were sent to an off-site recycling facility (Autolite 1985).

In April 1985, OEPA requested the voluntary participation of Autolite in a remedial investigation and feasibility study (RI/FS) of the area north of Fostoria (Autolite 1990). In April 1986, TAGA submitted the initial work plan for the RI/FS to OEPA. In 1986, the neighborhoods in the area of North Union, Bittersweet and Walnut streets were connected to the city of Fostoria water supply system. In December 1986, Autolite and four other Fostoria industries were served with summons in response to a citizens' complaint and were named in a lawsuit alleging TCE pollution of groundwater and soil (Autolite 1990; Glenn et

al. 1990). The other industries named in the suit were Fostoria Industries, Roppe Rubber Company, Union Carbide, and Norton Manufacturing Company (Onyia 1991).

No other regulatory or remedial response activities have been undertaken at the BAC site since 1986 (Glenn et al. 1990; Onyia 1991).

### 3. SCREENING SITE INSPECTION PROCEDURES AND FIELD ACTIVITIES

#### 3.1 INTRODUCTION

This section outlines the procedures followed and observations made during the SSI of the BAC site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted according to the U.S. EPA-approved work plan with the following exceptions. Six soil samples, instead of eight specified in the work plan, were collected because this amount was adequately representative of potentially contaminated soil at the site. Five groundwater samples were collected instead of the eleven specified in the work plan because the other monitoring wells on-site are more than 120 feet deep and were considered to be less indicative of aquifer of concern (AOC) contamination that may be attributable to the BAC site.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the BAC site is provided in Appendix B.

#### 3.2 SITE REPRESENTATIVES INTERVIEW

Mathew Joseph and Mike Duet of FIT conducted an interview with Jack Glenn (Manager, Safety & Environment), Kai Hoff (Pollution Control Engineer), Steve Robinett (Senior Engineer), and James A. Herman (Manager, Pollution Control), all of Allied Signal, Inc., on August 21, 1990. Timothy Sainey, Cynthia McKandlish and Ken Richards of ERM-Midwest, and environmental consulting agency also represented Allied Signal, Inc., at the interview. The interview began at 8:15 a.m. and was conducted in the conference room of Allied Signal, Inc. During the

interview FIT gathered current and historical information regarding the site which aided in the planning of SSI activities.

### 3.3 RECONNAISSANCE INSPECTION

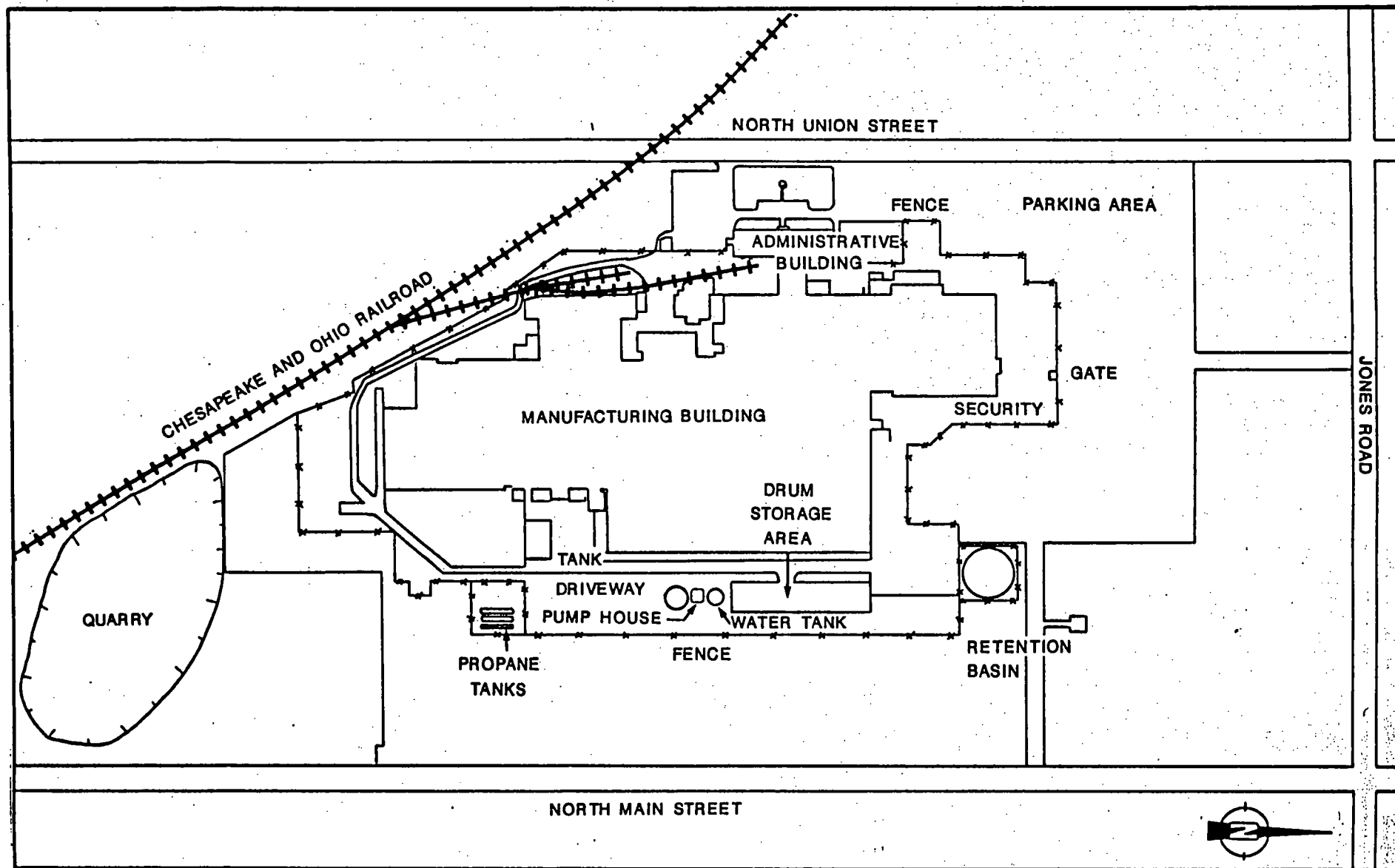
On August 21, 1990 FIT conducted a reconnaissance inspection of the BAC site and the surrounding area according to E & E health and safety guidelines (E & E 1987). The reconnaissance inspection was begun at 10:05 a.m. and included a walk-through of the site to decide appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was accompanied by Sainey and Richards of ERM-Midwest during the reconnaissance inspection.

Reconnaissance Inspection Observations. The BAC site is located at 1600 North Union Street, Fostoria, Ohio. The site is bordered on the west by Union Street, on the north by Jones Road, on the east by Main Street, and on the south by a grassy area and a quarry. The Chesapeake and Ohio Railroad tracks are adjacent to the site on the southwest (see Figure 3-1 for site features).

The site occupies approximately 55 acres (Glenn et al. 1990). An office/manufacturing building is located near the center of the site. A fence has been erected around three sides of the building. The west side of the building, where the entrances are located, is unfenced. Access to the manufacturing area is controlled by a gate in the northern side of the fence. Traffic into the manufacturing area is monitored by a guard stationed in a guard house located east of the gate.

Paved parking areas lie to the west and north of the office/manufacturing building. A grass-covered area is located between Jones Road and the northern parking lot. The area between Main Street and the eastern section of fence is used for growing soybeans.

A storm water retention basin is located near the northeastern corner of the fence. Just south of the basin are a drum storage building, a water tank, and three propane storage tanks. A grass-covered area lies between the drum storage area and the propane storage tanks. The propane tanks are surrounded by a fence.



SOURCE: Drawn from map by: T.A. Gleason Associates.

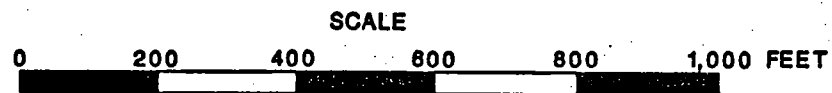


FIGURE 3-1 SITE FEATURES

The southern part of the facility borders a grass-covered area and a quarry. A driveway extends from the storm water retention basin area through the southern part of the site to the west. Approximately 23 monitoring wells and 3 production wells are on-site.

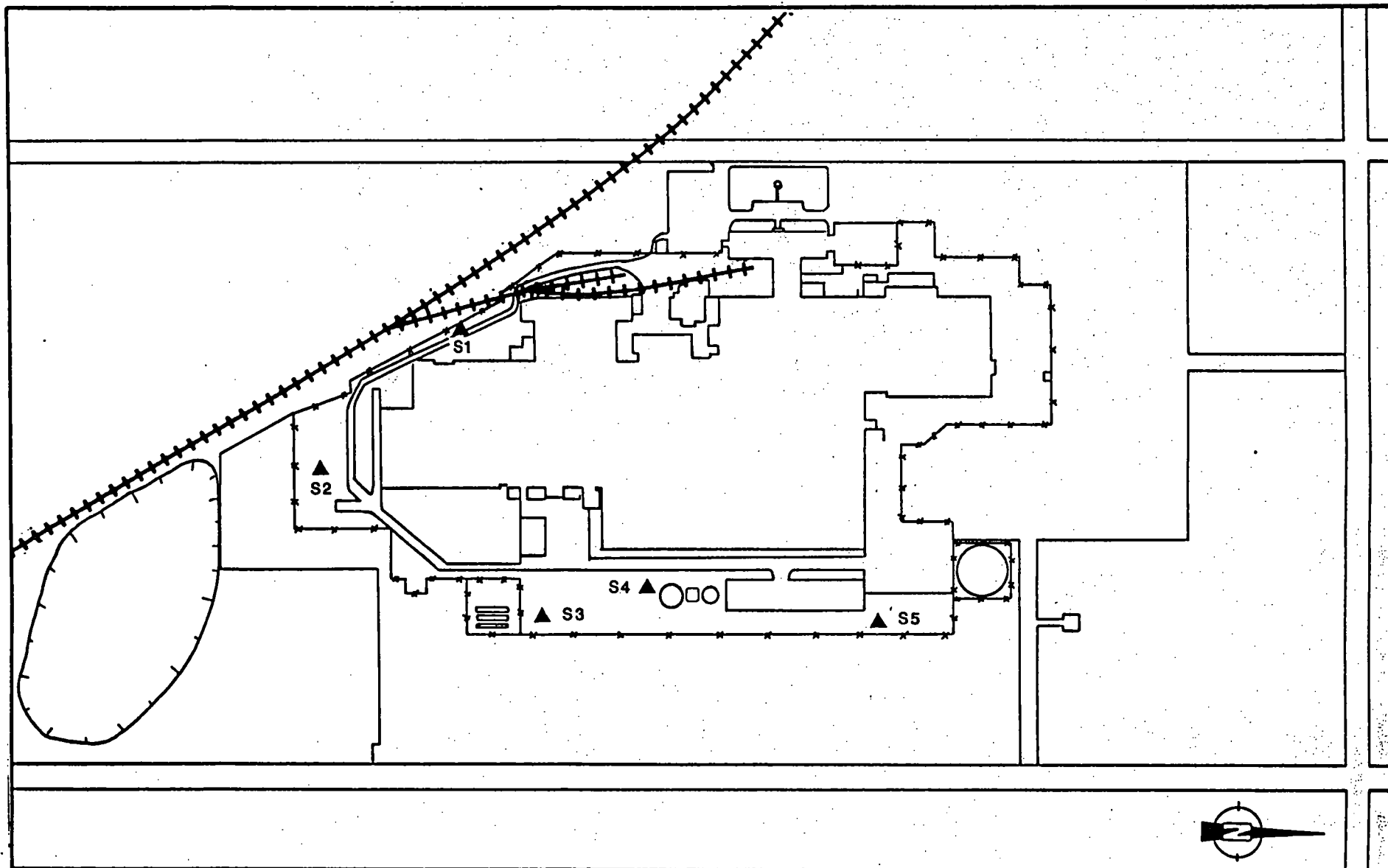
Photographs of the BAC site are provided in Appendix C.

### 3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the BAC site. The TCL and TAL are included with corresponding quantitation/detection limits in Appendix D.

On August 21, 1990 FIT-collected five on-site soil samples and one off-site soil sample; on August 22, 1990 FIT-collected five groundwater samples. The site representatives were offered portions of the on-site soil samples. Site representatives accepted portions of two on-site soil samples and the volatile organic analysis portion of all groundwater samples.

Soil Sampling Procedures. Sampling locations S1 to S5 were selected to aid in characterizing the waste that may have been deposited or spilled at the site. All samples were collected at a depth of 2 to 6 inches. Soil sample S1 was collected in the southwest portion of the site in the grass covered area between the railroad tracks and the driveway (see Figure 3-2 for on-site sampling locations). The sample consisted of brown sandy soil. Soil sample S2 was collected at the southern boundary of the site. The sampling location was about 50 feet north and 110 feet west of the southeast corner of the fence. The sample consisted of brown sandy clay. Soil sample S3 was collected about 50 feet north of the propane tanks. The sample consisted of black-gray clay loam. Soil sample S4 was collected near the water tank and drum storage building, which are located east of the office/manufacturing building. The sample consisted of brown clay. Soil sample S5 was collected from an area about 150 feet south of the storm water retention basin. The sample consisted of brown sandy loam.



SOURCE: Drawn from map by: T.A. Gleason Associates.

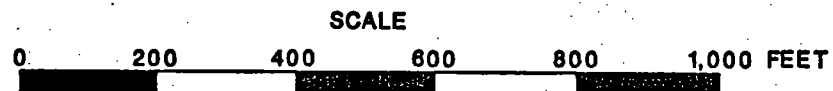


FIGURE 3-2 ON-SITE SOIL SAMPLING LOCATIONS

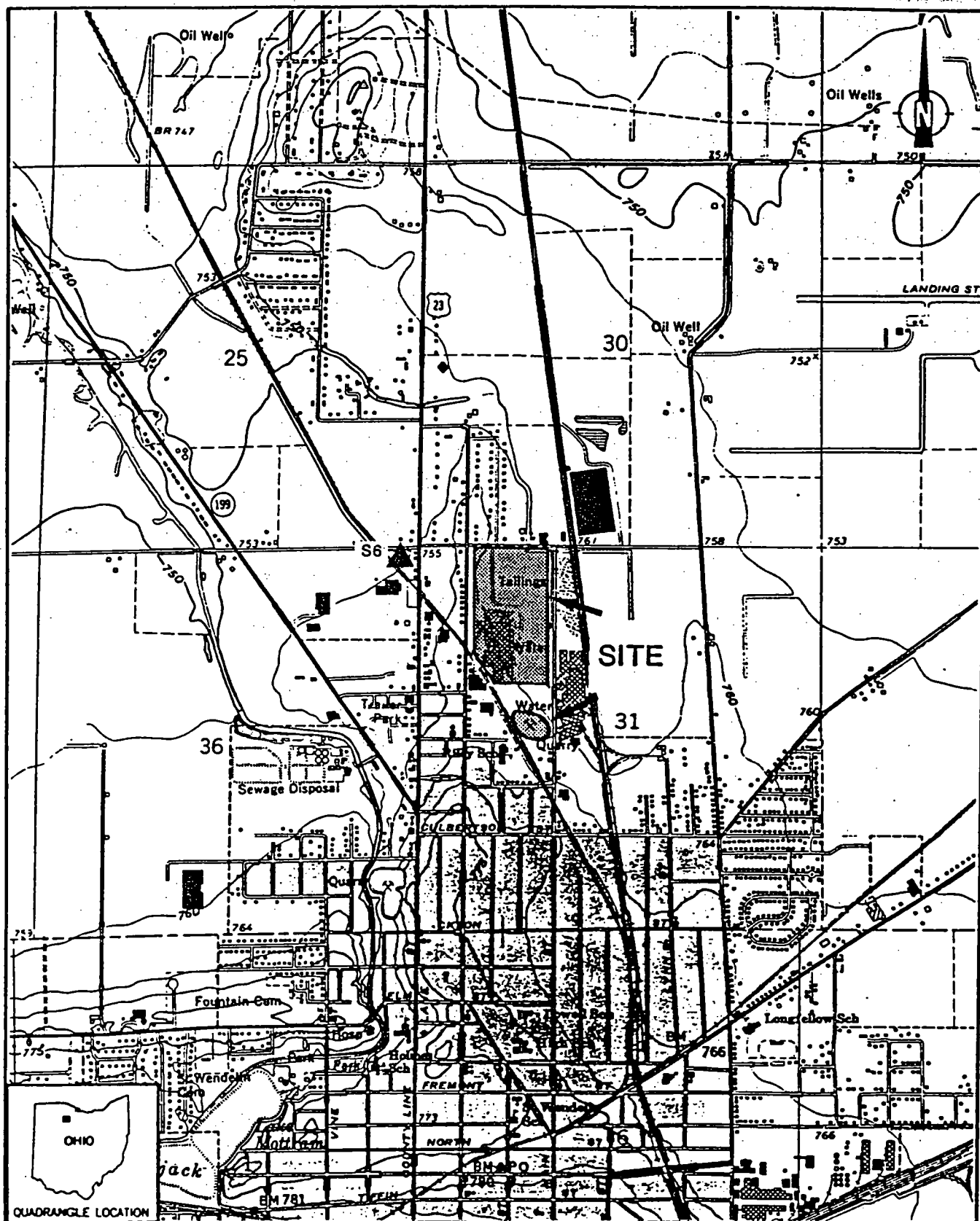
A potential background sample, S6, was also collected during the SSI (see Figure 3-3 for off-site soil sampling location). This sampling location was chosen to assess the representative chemical composition of the soil in the area of the site. Soil sample S6 was collected from an open area about 1/4 mile northwest of the BAC site. This location was about 250 feet west of State Route 23, and 20 feet south of Jones Road. The sample consisted of brown sandy soil.

All soil samples were collected using garden trowels. After collecting and packaging the volatile organic compound fraction of the sample, the trowel was used to mix the sample material in a stainless steel bowl and then to transfer the material into the sample bottles using a stainless steel spoon (E & E 1987).

Standard E & E decontamination procedures were followed to during the collection of soil samples. The procedures included the cleaning of equipment (e.g., bowls, trowels, and stainless steel spoons) with a solution of detergent (Alconox) and distilled water and triple-rinsing the equipment with distilled water before the collection of each subsequent sample (E & E 1987). All soil samples were packaged and shipped according to U.S. EPA-required procedures.

As directed by the U.S. EPA, all soil samples were analyzed using the U.S. EPA Contract Laboratory Program (CLP).

Groundwater Sampling Procedures. Two process well samples (MW1 and MW2), and three monitoring well samples (MW3, MW4, and MW5) were collected on August 22, 1990, to determine whether TCL compounds and TAL analytes had migrated into groundwater at the site. Process well MW1 is located in the western section of the office/manufacturing building (see Figure 3-4 for groundwater sampling locations). Process well MW2 is located in the southwestern section of the building. Monitoring well MW3 is located just outside the building to the east. Monitoring well MW4 is located approximately 25 feet south of the propane tanks. Monitoring well MW5 is located east of the water tank. According to U.S. EPA quality assurance/quality control (QA/QC) requirements, a duplicate groundwater sample and a field blank sample were also collected. The duplicate sample was collected at location MW2.



SOURCE: USGS, Fostoria, OH Quadrangle, 7.5 Minute Series, 1960, photorevised 1972.

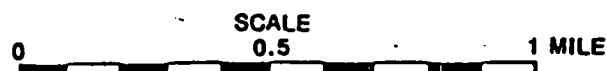
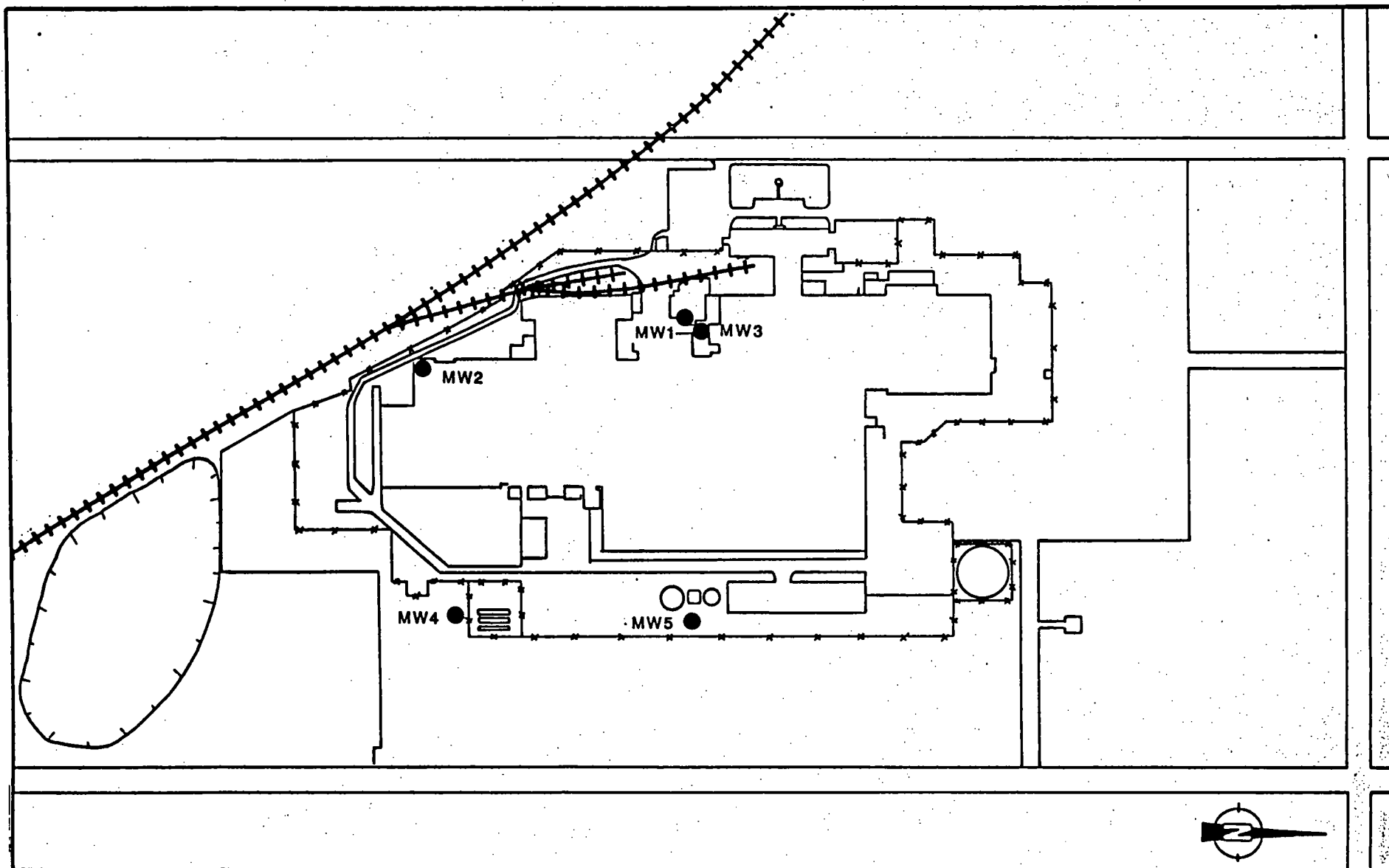


FIGURE 3-3 OFF-SITE SOIL SAMPLING LOCATION



SOURCE: Drawn from map by: T.A. Gleason Associates.

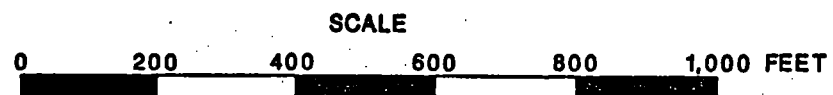


FIGURE 3-4 GROUND WATER SAMPLING LOCATIONS

The monitoring wells were purged of three to five volumes of standing water before the collection of the samples to ensure the collection of a groundwater sample that was chemically representative of actual aquifer conditions. Depth to the groundwater was measured before purging the monitoring wells (see Table 3-1 for monitoring well measurement data). The monitoring well samples were collected with a stainless steel bailer that had been scrubbed with a solution of detergent (Alconox) and distilled water, and triple-rinsed with distilled water before the collection of the sample (E & E 1987). Water from the bailer was poured directly into the sample bottles. The process wells were not purged since water was being pumped continuously. The production well samples were collected directly from the outlets. As directed by U.S. EPA, the groundwater samples were analyzed using U.S. EPA CLP.

**Table 3-1**

**Monitoring Well Measurement Data**

<b>Well</b>	<b>Depth (feet)</b>	<b>Depth to Water (feet)</b>	<b>Well Elevation (feet)</b>	<b>Water Elevation (feet)</b>
MW3	63.00	14.41	762.60	748.19
MW4	50.50	11.63	761.27	749.64
MW5	50.00	9.78	760.00	750.22

#### 4. ANALYTICAL RESULTS

This section presents the results of the chemical analyses of FIT-collected soil samples and groundwater samples for TCL compounds and TAL analytes.

All samples were analyzed for volatile organics, semivolatile organics, pesticides, polychlorinated biphenyls (PCBs), metals, and cyanide. Complete chemical analysis results of FIT-collected soil samples and groundwater samples are provided in Tables 4-1, and 4-2 respectively. In addition, significant tentatively identified compound (TIC) detected in the analysis of FIT-collected soil samples are also provided in the table 4-1. Quantitation/detection limits used in the analysis of samples are provided in Appendix D.

The analytical data for the chemical analysis of soil samples and groundwater samples collected for this SSI have been reviewed by U.S. EPA for compliance with terms of the CLP, and the review has been approved by U.S. EPA. The analytical data have also been reviewed by FIT for validity and usability. Any additions, deletions, or changes to the data have been incorporated in the chemical analysis results tables presented in this section.

Table 4-1  
RESULTS OF CHEMICAL ANALYSIS OF  
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6
Date	8/21/90	8/21/90	8/21/90	8/21/90	8/21/90	8/21/90
Time	1145	1200	1215	1250	1315	1420
CLP Organic Traffic Report Number	ELY74	ELY75	ELY76	ELY77	ELY78	ELY79
CLP Inorganic Traffic Report Number	MELF70	MELF71	MELF72	MELF73	MELF74	MELF75
<u>Compound Detected</u> (values in ug/kg)						
<u>Volatile Organics</u>						
methylene chloride	—	—	75 B	—	—	—
<u>Semivolatile Organics</u>						
1,2,4-trichlorobenzene	—	—	—	—	—	59 J
naphthalene	150 J	—	—	—	—	—
2-methylnaphthalene	250 J	—	—	—	—	180 J
acenaphthylene	280 J	—	—	—	—	150 J
acenaphthene	130 J	—	—	—	—	—
dibenzofuran	180 J	—	—	—	—	89 J
fluorene	220 J	—	—	—	—	—
phenanthrene	2,100	160 J	100 J	110 J	86 J	260 J
anthracene	300 J	—	—	—	—	82 J
fluoranthene	3,100	300 J	190 J	180 J	160 J	580 J
pyrene	3,100	230 J	130 J	130 J	110 J	490 J
benzo[a]anthracene	1,300	120 J	74 J	63 J	62 J	330 J
chrysene	1,900	160 J	120 J	97 J	88 J	470 J
benzo[b]fluoranthene	2,100 J	130 J	120 J	76 J	93 J	660
benzo[k]fluoranthene	2,000 J	170 J	110 J	62 J	78 J	390 J
benzo[a]pyrene	1,600 J	130 J	85 J	65 J	60 J	380 J
indeno[1,2,3-cd]pyrene	1,200 J	78 J	58 J	50 J	42 J	240 J
dibenzo[a,h]anthracene	120 J	—	—	—	—	67 J
benzo[g,h,i]perylene	1,500 J	98 J	66 J	54 J	44 J	270 J
<u>TIC</u>						
Hexadecane (544-76-3)	—	—	700 J	—	—	—

— Not detected.

Table 4-1 (cont.)

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6
<u>Pesticides/PCBs</u>						
4,4'-DDT	38 J	57	80	—	57	—
<u>Analyte Detected</u> <u>(values in mg/kg)</u>						
aluminum	12,400	10,300	14,100	18,100	18,100	12,400
antimony	—	5.6 BU	5.3 BU	—	—	—
arsenic	8	6.6	4.9	5.8	5.3	7.7
barium	151	75.4	89.7	111	122	162
beryllium	1.3	0.52 B	1 B	1.2 B	0.79 B	0.84 B
cadmium	0.93 B	0.34 B	0.88 B	0.57 B	0.7 B	0.47 B
calcium	17,000	42,900	5,360	6,570	6,540	41,700
chromium	21.1	14.7	21.1	24.7	24.6	20.9
cobalt	9.6 B	6.9 B	7.6 B	8.9 B	12.9	11.4 B
copper	53.7	25.6	34.8	29.5	33.4	40.3
iron	21,700	16,400	19,700	23,600	26,200	27,500
lead	103	466	54.9	32.7	39.4	33.2
magnesium	10,200	26,700	4,190	5,410	5,130	13,300
manganese	397 *J	411 *J	292 *J	236 *J	400 *J	1,150 *J
mercury	0.12	—	—	—	—	0.09
nickel	22.1	13.6	22.7	28.8	26.5	28.2
potassium	1,650	1,050 B	1,930	2,850	2,520	2,040
selenium	0.8 B	—	0.85 BU	0.61 BU	0.79 B	—
sodium	565 B	308 BJ	269 BJ	301 BJ	338 BJ	375 BJ
vanadium	27.3 EJ	23.7 EJ	27.8 EJ	30.8 EJ	33.9 EJ	22.6 EJ
zinc	309	94.9	167	168	129	110
cyanide	0.8	—	—	—	—	0.65

— Not detected.

Table 4-1 (Cont.)

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.
B	This flag is used when the compound is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semiquantitative if it is $\leq 5\times$ the blank concentration ( $\leq 10\times$ the blank concentrations for common laboratory artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semiquantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
B	Value is real, but is above instrument DL and below ODL.	Value may be quantitative or semiquantitative.
J	Value is above ODL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is $\leq 50\%$ of spike absorbance.	Value may be semiquantitative.

**Table 4-2**  
**RESULTS OF CHEMICAL ANALYSIS OF**  
**FIIT-COLLECTED GROUNDWATER SAMPLES**

Sample Collection Information and Parameters	MW1	MW2	Duplicate	MW3	MW4	MW5	Blank
Date	08/22/90	08/22/90	08/22/90	08/22/90	08/22/90	08/22/90	08/22/90
Time	0945	0955	0955	1115	1230	1240	1145
CLP Organic Traffic Report Number	ELY83	ELY84	ELY90	ELY85	ELY86	ELY87	ELY89
CLP Inorganic Traffic Report Number	MELF79	MELF80	MELF86	MELF81	MELF82	MELF83	MELF85
Temperature (°C)	12	13	13	12	15	15	15
Specific Conductivity (umhos/cm)	620	650	650	350	350	400	NA
pH	6.63	6.05	6.05	9.03	9.5	9.24	6.07
<u>Compound Detected</u> (values in ug/L)							
<u>Volatile Organics</u>							
vinyl chloride	7 J	—	—	89	—	—	—
methylene chloride	—	—	—	—	6 J	8 J	5 J
1,1-dichloroethene	22	18	14 J	6	21 J	—	—
1,1-dichloroethane	5 J	2 J	2 J	—	—	—	—
1,2-dichloroethene (total)	360 DJ	72	66 J	160 D	4 J	—	—
chloroform	2 J	5	4 J	—	2 J	—	—
1,1,1-trichloroethane	2 J	25 J	25 J	—	33	—	—
trichloroethene	14,000 DJ	760 D	61 DJ	77	70	—	—
tetrachloroethene	21	3 J	2 J	—	—	—	—
toluene	5 J	—	—	—	—	—	—
<u>Analyte Detected</u> (values in ug/L)							
aluminum	115 BJ	—	131 BJ	213 J	148 BJ	158 BJ	124 B
antimony	23.2 B	—	—	—	—	—	—
arsenic	3.9 B	—	—	—	—	—	—
barium	170 B	78.1 B	76 B	134 B	38 B	41.5 B	2.1 B
cadmium	1.1 BJ	1.2 BJ	1.1 BJ	—	—	—	—
calcium	120,000	95,400	94,500	113,000	89,200	104,000	114 BJ
cobalt	2.6 B	—	—	—	—	—	—
copper	—	7.2 BJ	17.1 BJ	14.7 BJ	—	—	46.6
iron	1,040	106	87.7 B	2,060	111	91 B	—
lead	1.2 B	—	1.7 B	5.5	1.5 B	1.9 B	—
magnesium	41,900	38,300	37,880	35,400	34,500	30,400	32 BJ
manganese	58.3	10.4 B	10.6 B	133	4.5 B	2.1 B	—
nickel	—	—	—	15.3 BJ	—	—	5.5 B
potassium	3,180 B	3,040 B	3,280 B	3,240 B	1,490	1,440 B	—
selenium	—	—	—	—	3.2 B	5.1	—
sodium	60,000	48,400	48,200	57,000	27,000	7,210	798 BJ
vanadium	—	—	—	—	2.2 B	—	—
zinc	265	38.6	24.7	61.7	14.9 B	14.1 B	—

— Not detected.

NA Not available.

Table 4-2 (Cont.)

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.
D	This flag identifies all compounds identified in the analysis at secondary dilution factor.	Alerts data user to a possible change in the ORL. Data is quantitative.
ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
B	Value is real, but is above instrument DL and below ORL.	Value may be quantitative or semi-quantitative.
J	Value is above ORL and is an estimated value because of a QC protocol.	Value may be semiquantitative.

## 5. DISCUSSION OF MIGRATION PATHWAYS

### 5.1 INTRODUCTION

This section presents discussions of data and information on potential migration and targets of TCL compounds and TAL analytes that are possibly attributable to the BAC site.

The five migration pathways of concern discussed are groundwater, surface water, air, fire and explosion, and direct contact.

### 5.2 GROUNDWATER

The groundwater samples collected at the BAC site contained TCL compounds and TAL analytes. The TCL compounds detected in the groundwater samples included vinyl chloride (89 ug/L in sample MW3), 1,1,-dichloroethene (22 ug/L in MW1), 1,1-dichloroethane (5 J ug/L in sample MW1), 1,2-dichloroethene (360 DJ ug/L in sample MW1), trichloroethene (14,000 DJ ug/L in sample MW1), and tetrachloroethene (21 ug/L in sample MW1) (see Table 4-2 for the complete analysis and the definition of the qualifiers). The TAL analytes detected in the groundwater samples included antimony (23.2 B ug/L in sample MW1), arsenic (3.9 B ug/L in sample MW1), lead (5.5 ug/L in sample MW3), selenium (5.1 ug/L in sample MW5) and zinc (265 ug/L in sample MW1).

Soil samples from the BAC site were collected and analyzed to determine the potential for contaminants to migrate from the site to groundwater in the vicinity of the site. TCL compounds and TAL analytes were detected at levels above background concentrations in the on-site soil samples. The TCL contaminants present in the on-site soil samples included acenaphthene (130 J ug/kg), fluorene (220 J ug/kg), phenanthrene

(2,100 ug/kg), fluranthene (3,100 ug/kg), and pyrene (3,100 ug/kg), all detected in sample S1 (see Table 4-1 for the complete analysis and the definition of the qualifiers). TAL analytes present in the on-site soil samples included antimony (5.6 BNJ mg/kg in sample S2), and selenium (0.85 BWJ mg/kg in sample S3). These analytes were not detected in the background soil sample (sample S6). Lead (466 mg/kg) and zinc (309 mg/kg) was detected at higher concentration than the background soil sample.

The TCL compounds detected in the groundwater samples may be attributable to the BAC site since halogenated solvents have been used on-site during degreasing operations. However, the attribution is not conclusive since these compounds were not detected in the soil samples. The TAL analytes (antimony, selenium, lead, and zinc) detected in the groundwater samples may be attributable to the BAC site since these analytes were also detected in the on-site soil samples.

Since TCL compounds and TAL analytes were detected in the on-site soil samples and groundwater samples, there is a potential that TCL compounds and/or TAL analytes have migrated from the BAC site into the groundwater.

Geologic Setting. The potential for TCL compounds and/or TAL analytes to migrate into groundwater from the BAC site is also based on the following geological information. The soil in the area of the site consists of Milton silt loam underlain by Wisconsinan-age ground moraine composed of a 2- to 8-foot thick layer made up of unsorted mixture of clay, silt, sand, and coarser fragments of sand (United States Department of Agriculture [USDA] 1980, United States Geological Survey [USGS] 1967).

The glacial till is underlain by a 300-foot-thick layer of Silurian Lockport dolomite bedrock (Ohio Department of Natural Resources [ODNR] 1981; TAGA 1986). The Lockport dolomite was formed when carbonate sediments were deposited in a shallow Paleozoic sea. The carbonate sediments were gradually consolidated into limestone and subsequently transformed to dolomite. The dolomite bedrock is underlain by Rochester shale (TAGA 1986). Near the BAC site the dolomite is approximately 3 feet below the ground surface (see Appendix E). Well logs of the area near the BAC site show that residential wells obtain water from the

dolomite bedrock, which is the AOC. The depth to the AOC is about 10 feet (see Appendix E for well logs and boring logs of the BAC site area). Private residential wells extend to depths between approximately 59 to 90 feet (see Appendix E). Based on the residential well logs and monitoring well logs, the presence of any confining layer within the dolomite aquifer is not evident (see Appendix E).

Based on the topography of the BAC site and file information, regional groundwater is assumed to in a northerly direction (USGS 1960; TAGA 1986). Local groundwater flow may be influenced by the formation of cones of depressions due to the continuous pumping of the on-site process wells, and off-site production wells located southwest and southeast of the BAC site (TAGA 1986; Keck Consulting Services, Inc. 1987). The on-site process wells, MW1 and MW2, are pumping at the rate of 100 gallons per minute (gpm) and 200 gpm respectively (TAGA 1987).

People within the Fostoria municipal boundaries depend on surface water supplied by the Fostoria Water Department. However, during drier periods Fostoria Water Department also uses four municipal wells to supply water. These wells are located approximately 2 1/2 miles south of the BAC site. Water from the individual municipal wells is blended prior to distribution (Saum 1989). The people residing outside the municipal boundaries, but within a 3-mile radius of the BAC site, use residential wells as their source of drinking water. Therefore, the total population within 3-mile radius of the BAC site is considered to be the population potentially affected by any groundwater contamination attributed to the BAC site.

Based on water distribution information and USGS topographic maps (USGS 1960) of the site area, the population within a 3-mile radius of the BAC site using groundwater as a drinking water source is approximately 17,590 persons. This approximation is based on a house count of residents within the 3-mile radius of the BAC site (USGS 1960), but outside Fostoria municipal boundaries, multiplied by persons per household value of 2.72 (U.S. Department of Commerce [USDC] 1988) and adding this value to the Fostoria population of 15,743 persons.

### 5.3 SURFACE WATER

There is no potential for TCL compounds and/or TAL analytes to migrate from the site via surface water runoff. This conclusion is based on the following information:

- o Any surface water runoff generated would likely infiltrate into the soil; and
- o The BAC site is bordered by city streets and railroad tracks which act as barriers to contain and prevent surface water runoff.

### 5.4 AIR

A release of potential contaminants to the air was not documented by FIT during the SSI of the BAC site. During the reconnaissance inspection, the FIT site entry equipment (organic vapor analyzer, oxygen meter, explosimeter, hydrogen cyanide detector tubes) did not detect any site-related readings deviating from background levels. According to the U.S. EPA-approved work plan, air sampling was not conducted by FIT.

Except for those areas of the BAC site that are covered by pavement and buildings, the site is grass covered. As such, there is no potential for TCL compounds and TAL analytes to migrate from the soil to air, although these contaminants have been detected in on-site soil samples.

### 5.5 FIRE AND EXPLOSION

According to Dave Wood, Fire Chief of Fostoria, Ohio, the BAC site has no history of fires or explosions (Wood 1989).

At the time of inspection FIT observations and explosimeter readings indicated that no apparent potential for fire and/or explosion existed at the site.

### 5.6 DIRECT CONTACT

According to the interview with the site representatives, no spills or documented incidents of direct contact with TCL compounds or TAL analytes have occurred at the BAC site. Site entry is controlled by 24-hour surveillance, thus reducing the potential for unauthorized people to come into direct contact with TCL compounds and TAL analytes.

However, a potential exists that the on-site workers may come into direct contact with TCL compounds and TAL analytes. The potential is based on the following information.

- o TCL compounds and TAL analytes have been detected in the on-site soil samples.
- o TCL compounds and TAL analytes have been detected in the water sample from the production wells.

Approximately 1,058 employees work at the BAC site (Glenn et al. 1990).

## 6. REFERENCES

Autolite, May 24, 1984, letter to Bruce Dunlavy, OEPA, from Rex B. Anderson, Director-Employee Relations, Fostoria, Ohio.

-----, September 20, 1984a, letter to Kenneth W. Kerik, Seneca County Board of Health, from Rex B. Anderson, Director-Employee Relations, Fostoria, Ohio.

-----, November 27, 1984b, letter to U.S. EPA, from John L. Holden, Manager, Health, Safety, Environmental and Protection Services, Fostoria, Ohio.

-----, 1984c, "Autolite Provides Bottled Water", Fostoria, Ohio.

-----, January 30, 1985, letter to Katherine L. Wilson, OEPA, from John L. Holden, Fostoria, Ohio.

-----, August 21, 1990, Fostoria, Ohio Groundwater Contamination - Major Events, Fostoria, Ohio.

Chester Engineers, Inc., May 8, 1984, Bendix Autolite Corporation, Fostoria, Ohio - Electroplating and Metal Finishing Guidelines - Baseline Monitoring Report, Coraopolis, Pennsylvania.

E & E, 1987, Quality Assurance Project Plan Region V FIT Conducted Site Inspections, Chicago, Illinois.

Glenn, Jack, Kai Hoff, Steve Robinett, and James Herman of Allied Signal, Timothy Sainey, Cynthia Mckandlish, and Ken Richards of ERM-Midwest, August 21, 1990, interview, conducted by Mathew Joseph, and Mike Duet of CCJM.

Keck Consulting Services, Inc., 1987, Report of Hydrogeologic Investigation, Roppe Rubber Company, Fostoria, Ohio, Williamston, Michigan.

OEPA, June 6, 1983, RCRA Interim Status Inspection Form, prepared by David L. Ferguson, Bowling Green, Ohio.

-----, January 7, 1985, letter to John L. Holden, Autolite, from Katherine L. Wilson, OEPA, Bowling Green, Ohio.

ODH, August 17, 1972, Application for Permit Process, submitted by Ford Motor Company, Fostoria, Ohio.

ODNR, Division of Geological Survey, 1981, Geologic Map of Ohio, Columbus, Ohio.

Onyia, Edward, February 8, 1991, OEPA, telephone conversation, contacted by Mathew Joseph of CCJM.

Saum, Pat, April 19, 1989, Assistant Plant Manager, Fostoria, Ohio Water Department, telephone conversation, contacted by Mathew Joseph of CCJM.

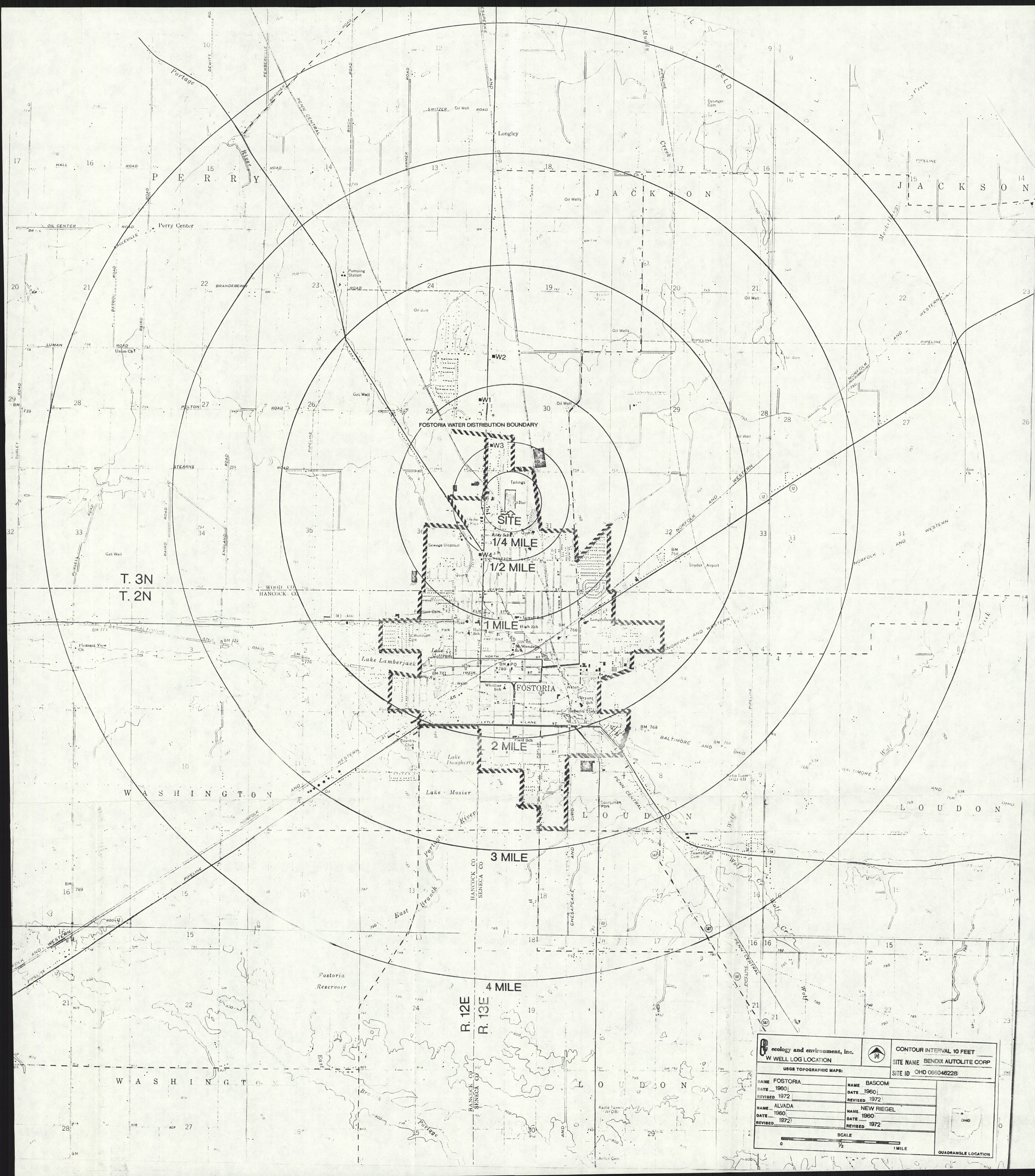
SDCPH, December 3, 1984, letter to residents, from Kenneth W. Kerik, Health Commissioner, Tiffin, Ohio.

TAGA, February 6, 1986, Hydrological and Groundwater Quality Investigations for Autolite Division, Allied Corporation, Fostoria, Ohio, Cincinnati, Ohio.

- , October 19, 1987, Work Plan and Description of Current Situation, Remedial Investigation/Feasibility Study, Fostoria, Ohio, Cincinnati, Ohio.
- U.S. EPA, August 22, 1980, Notification of Hazardous Waste Activity, submitted by Bendix Autolite Corporation, Fostoria, Ohio.
- , November 17, 1980a, Hazardous Waste Permit Application, submitted by Bendix Autolite Corporation, Fostoria, Ohio.
- , November 28, 1984, Notification of Hazardous Waste Site, submitted by Bendix Autolite Corporation, Fostoria, Ohio.
- , August 28, 1985, Potential Hazardous Waste Site-Preliminary Assessment, Bendix Autolite Corporation, U.S. EPA # 066046228, prepared by Timothy J. Maley of E & E.
- , February 12, 1988, Office of Solid Waste and Emergency Response, Pre-Remedial Strategy for Implementing SARA, Directive number 9345.2-01, Washington, D.C.
- USDA, September 1980, Soil Survey of Seneca County, Ohio.
- USDC, Bureau of the Census, 1988, Estimates of Households for Counties, Washington, D.C.
- USGS, 1960, photorevised 1972, Fostoria, Bascom, Alvada, and New Riegel, Ohio Quadrangles, 7.5 minute series: 1:24,000.
- , 1967, Glacial Map of Ohio, Denver, CO.
- Wood, Dave, April 24, 1989, Chief, Fostoria Fire Department, telephone conversation, contacted by Mathew Joseph of CCJM.

**APPENDIX A**

**SITE 4-MILE RADIUS MAP**



**ecology and environment, inc.**  
W WELL LOG LOCATION

USGS TOPOGRAPHIC MAPS:

NAME FOSTORIA	NAME BASCOM
DATE 1960	DATE 1960
REVISED 1972	REVISED 1972
NAME ALVADA	NAME NEW RIEGEL
DATE 1960	DATE 1960
REVISED 1972	REVISED 1972

SCALE  
0 1/2 1 MILE

CONTOUR INTERVAL 10 FEET  
SITE NAME BENDIX AUTOLITE CORP  
SITE ID OHD 066046228

QUADRANGLE LOCATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER D066C46228

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) BENDIX AUTOLITE CORPORATION  
02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 1600 NORTH UNION ROAD  
03 CITY FOSTORIA  
04 STATE OHIO 05 ZIP CODE 44830 06 COUNTY SENACA  
07 COUNTY CODE 147 08 CONG DIST 4  
09 COORDINATES  
09 LATITUDE 41° 10' 24" N 09 LONGITUDE 83° 25' 00" W  
10 TYPE OF OWNERSHIP (Check one)  
☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL  
☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 08/21/1990 AND 08/22/1990  
02 SITE STATUS  
☒ ACTIVE  
☐ INACTIVE  
03 YEARS OF OPERATION 1936 - PRESENT  
BEGINNING YEAR ENDING YEAR UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☒ B. EPA CONTRACTOR C.C. JOHNSON AND MALHOTRA  
☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR  
☐ E. STATE ☐ F. STATE CONTRACTOR ☐ G. OTHER

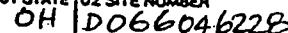
05 CHIEF INSPECTOR MATHEW JOSEPH  
06 TITLE CIVIL ENGINEER  
07 ORGANIZATION CCJM  
08 TELEPHONE NO. (312) 621-3944  
09 OTHER INSPECTORS MIKE DUET  
10 TITLE ENVIRONMENTAL SCIENTIST  
11 ORGANIZATION CCJM  
12 TELEPHONE NO. (312) 621-3944  
CORTNEY SCHMIDT  
WATER RESOURCES MANAGER  
ECOLOGY AND ENVIRONMENT (312) 663-9445  
NAZEER UDDIN  
MARINE GEOLOGIST  
ECOLOGY AND ENVIRONMENT (312) 663-9445  
( )  
( )

13 SITE REPRESENTATIVES INTERVIEWED JACK GLENN  
14 TITLE MANAGER, SAFETY & ENVIRONMENT  
15 ADDRESS ALLIED SIGNAL 1600 N. UNION STREET FOSTORIA, OHIO 44830  
16 TELEPHONE NO. (419) 435-6655  
KAI HOFF  
POLLUTION CONTROL ENGINEER  
1600 N. UNION STREET FOSTORIA, OHIO 44830  
(419) 435-6655  
STEVE ROBBETT  
SENIOR ENGINEER  
1600 N. UNION STREET FOSTORIA, OHIO 44830  
(419) 435-6655  
JAMES A. HERMAN  
MANAGER - POLLUTION CONTROL  
20650 CIVIC CENTER DRIVE P.O. BOX 5029 SOUTHFIELD, MI 48086  
(313) 827-6352  
TIMOTHY J. SAINY  
SENIOR PROJECT GEOLOGIST  
ERM - MIDWEST, INC. 450 W. WILSON BRIDGE ROAD COLUMBUS, OHIO 43085  
(614) 433-7900  
CYNTHIA MCKANDLISH  
ENVIRONMENTAL SCIENTIST  
450 W. WILSON BRIDGE ROAD COLUMBUS, OHIO 43085  
(614) 433-7900  
KEN RICHARDS  
PROJECT MANAGER  
450 W. WILSON BRIDGE ROAD COLUMBUS, OHIO 43085  
(614) 433-7900

17 ACCESS GAINED BY (Check one)  
☒ PERMISSION  
☐ WARRANT  
18 TIME OF INSPECTION 0800 HRS  
19 WEATHER CONDITIONS OVERCAST, RAINY, MIDTOD'S

IV. INFORMATION AVAILABLE FROM

01 CONTACT EDWARD ONYIA  
02 OF (Agency/Organization) OEPA, NW DISTRICT OFFICE  
03 TELEPHONE NO. (419) 352-8461  
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM MATHEW JOSEPH  
05 AGENCY USEPA  
06 ORGANIZATION CCJM  
07 TELEPHONE NO. 312-621-3944  
08 DATE 02, 08, 91  
MONTH DAY YEAR



☐ I. HIGHLY VOLATILE  
☐ J. EXPLOSIVE  
☒ K. REACTIVE  
☐ L. INCOMPATIBLE  
☐ M. NOT APPLICABLE

FIT SSI, AUG 21 AND 22, 1990  
US EPA FILE INFORMATION  
DEPA FILE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION  
01 STATE 02 SITE NUMBER  
010 066046228

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 17,590 04 NARRATIVE DESCRIPTION

SEE SECTION 5-2 OF THE NARRATIVE

01 ☐ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

SEE SECTION 5-3 OF THE NARRATIVE

01 ☒ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 18,796 04 NARRATIVE DESCRIPTION

SEE SECTION 5-4 OF THE NARRATIVE

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 0 04 NARRATIVE DESCRIPTION

SEE SECTION 5-5 OF THE NARRATIVE

01 ☒ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 1,058 04 NARRATIVE DESCRIPTION

SEE SECTION 5-6 OF THE NARRATIVE

01 ☒ F. CONTAMINATION OF SOIL 02 ☒ OBSERVED (DATE: 9/2/90) ☐ POTENTIAL ☐ ALLEGED  
03 AREA POTENTIALLY AFFECTED: ~ 55 04 NARRATIVE DESCRIPTION  
(Acres)

SEE SECTION 3-3 AND 5 OF THE NARRATIVE

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 17,590 04 NARRATIVE DESCRIPTION

SEE SECTION 5-2 OF THE NARRATIVE

01 ☒ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 WORKERS POTENTIALLY AFFECTED: 1,058 04 NARRATIVE DESCRIPTION

SEE SECTION 5-6 OF THE NARRATIVE

01 ☒ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 18,796 04 NARRATIVE DESCRIPTION

SEE SECTION 5 OF THE NARRATIVE



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

04 D066046 228

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

DURING THE SSI FIT DID NOT OBSERVE ANY DAMAGE TO FLORA.  
SINCE TCL COMPOUNDS AND TAL ANALYTES HAVE BEEN DETECTED AT SITE  
THERE EXISTS A POTENTIAL FOR DAMAGE TO FLORA

01 ☒ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (Include name(s) of species)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

DURING THE SSI FIT DID NOT OBSERVE ANY DAMAGE TO FAUNA.  
SINCE TCL COMPOUNDS AND TAL ANALYTES HAVE BEEN DETECTED AT SITE  
THERE EXISTS A POTENTIAL FOR DAMAGE TO FAUNA

01 ☒ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

DURING THE SSI FIT DID NOT OBSERVE ANY DAMAGE TO  
FOOD CHAIN. SINCE TCL COMPOUNDS AND TAL ANALYTES HAVE BEEN  
DETECTED AT SITE THERE EXISTS A POTENTIAL FOR DAMAGE TO FAUNA

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills/Leaks/Slumping/Leaking drums)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

SEE SECTION 4 AND 5 OF THE NARRATIVE

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

DURING SSI FIT DID NOT OBSERVE ANY DAMAGE TO OFF-SITE PROPERTY  
ALSO THERE IS NO FILE INFORMATION INDICATING DAMAGE TO OFF-SITE PROPERTY

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

REFER SECTION 2-3 OF THE NARRATIVE

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

NO ILLEGAL/UNAUTHORIZED DUMPING REPORTED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

NONE

III. TOTAL POPULATION POTENTIALLY AFFECTED: 18,796

IV. COMMENTS:

SEE SECTIONS 2, 3, 4 AND 5 OF THE NARRATIVE

V. SOURCES OF INFORMATION (Cite specific references, e.g., SSI file, SSI report, SSI data, etc.)

U.S. EPA FILE INFORMATION  
OEPA FILE INFORMATION  
KIT SSI, AUGUST 21, AND 22, 1990



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION  
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION  
01 STATE 02 SITE NUMBER  
041 066046228

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input checked="" type="checkbox"/> A. NPDES	UNKNOWN	UNKNOWN	UNKNOWN	SEE SECTION
<input type="checkbox"/> B. UIC				2-3 OF THE NARRATIVE
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT			<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input checked="" type="checkbox"/> C. DRUMS, ABOVE GROUND	UNKNOWN	UNKNOWN	<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input checked="" type="checkbox"/> D. TANK, ABOVE GROUND	3	UNKNOWN	<input type="checkbox"/> D. BIOLOGICAL	
<input checked="" type="checkbox"/> E. TANK, BELOW GROUND	UNKNOWN	UNKNOWN	<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)			NONE	

07 COMMENTS

SEE SECTION 2 AND 3 OF THE NARRATIVE

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

FIT DID NOT OBSERVE ANY DIKING AT SITE. THE WASTES ARE STORED IN DRUMS AND TRANSPORTED TO OFF-SITE PROPERTY FOR TREATMENT. THE STORAGE IS UP TO 90 DAYS.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS

THE ON SITE WORKERS MAY COME IN TO CONTACT WITH WASTES. ALSO SEE SECTION 5-6 OF THE NARRATIVE

VI. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis, records)

U.S. EPA FILE INFORMATION  
OEPA FILE INFORMATION  
FIT SSI, AUGUST 21, AND 22, 1990



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01. STATE 02. SITE NUMBER

04 ID 06604628

II. DRINKING WATER SUPPLY

01. TYPE OF DRINKING SUPPLY  
(Check as applicable)

SURFACE WELL  
COMMUNITY A. ☒ B. ☒  
NON-COMMUNITY C. ☐ D. ☒

02. STATUS

ENDANGERED AFFECTED MONITORED  
A. ☐ B. ☐ C. ☒  
D. ☐ E. ☐ F. ☐ UNKNOWN

03. DISTANCE TO SITE

A.  $\approx 2\frac{1}{2}$  (mi)  
B.  $\approx \frac{1}{4}$  (mi)

III. GROUNDWATER

01. GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available)  
COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)  
☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available)  
☐ D. NOT USED, UNUSEABLE

02. POPULATION SERVED BY GROUND WATER 17,590

03. DISTANCE TO NEAREST DRINKING WATER WELL  $\frac{1}{4}$  (mi)

04. DEPTH TO GROUNDWATER  
 $\sim 10$  (ft)

05. DIRECTION OF GROUNDWATER FLOW  
NORTHWEST

06. DEPTH TO AQUIFER OF CONCERN  
 $\sim 9$  (ft)

07. POTENTIAL YIELD OF AQUIFER  
UNKNOWN (gpd)

08. SOLE SOURCE AQUIFER  
C. YES ☐ NO ☒ UNKNOWN

09. DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

SEE - SECTION 5-2 OF THE NARRATIVE

10. RECHARGE AREA

☒ YES COMMENTS ON-SITE SOILS ARE CAPABLE OF RECHARGING THE GROUNDWATER  
☐ NO

11. DISCHARGE AREA

☒ YES COMMENTS THE LAKES AT SOUTH OF FOSTORIA MAY BE ABLE TO DISCHARGE TO AQUIFER  
☐ NO

IV. SURFACE WATER

01. SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02. AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

NONE

AFFECTED

DISTANCE TO SITE

☐ (mi)  
☐ (mi)  
☐ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01. TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE  
A. 5,661  
NO. OF PERSONS

TWO (2) MILES OF SITE  
B. 12,467  
NO. OF PERSONS

THREE (3) MILES OF SITE  
C. 17,590  
NO. OF PERSONS

02. DISTANCE TO NEAREST POPULATION

$\frac{1}{4}$  (mi)

03. NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

$\approx 4583$

04. DISTANCE TO NEAREST OFF-SITE BUILDING

$\frac{1}{10}$  (mi)

05. POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

THE FACILITY IS LOCATED IN AN INDUSTRIAL AREA. RESIDENTAL HOUSES ARE LOCATED AT NORTH OF THE SITE



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
04 ID 06 6046228

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A.  $10^{-6} - 10^{-8}$  cm/sec ☒ B.  $10^{-4} - 10^{-6}$  cm/sec ☐ C.  $10^{-4} - 10^{-3}$  cm/sec ☐ D. GREATER THAN  $10^{-3}$  cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☒ A. IMPERMEABLE  
(Less than  $10^{-6}$  cm/sec) ☐ B. RELATIVELY IMPERMEABLE  
( $10^{-4} - 10^{-6}$  cm/sec) ☒ C. RELATIVELY PERMEABLE  
( $10^{-2} - 10^{-4}$  cm/sec) ☐ D. VERY PERMEABLE  
(Greater than  $10^{-2}$  cm/sec)

03 DEPTH TO BEDROCK

~3 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

UNKNOWN (ft)

05 SOIL pH

UNKNOWN

06 NET PRECIPITATION

2 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.2 (in)

08 SLOPE

SITE SLOPE

<3 %

DIRECTION OF SITE SLOPE

WEST

TERRAIN AVERAGE SLOPE

<3 %

09 FLOOD POTENTIAL

NONE

SITE IS IN \_\_\_\_\_ YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

N/A

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

NONE

OTHER

A. \_\_\_\_\_ (mi)

B. \_\_\_\_\_ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

NONE

\_\_\_\_\_ (mi)

ENDANGERED SPECIES: \_\_\_\_\_

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS: NATIONAL/STATE PARKS,  
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS  
PRIME AG LAND AG LAND

A. <1/10 (mi)

B. 1/4 (mi)

C. UNKNOWN (mi) D. 1/10 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

REFER APPENDIX A

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

U.S. EPA FILE INFORMATION  
DEPA FILE INFORMATION  
FITS SI, AUGUST 21 AND 22, 1990  
USGS TOPOGRAPHIC MAPS  
US DEPARTMENT OF COMMERCE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 6 - SAMPLE AND FIELD INFORMATION

I IDENTIFICATION

01 STATE 02 SITE NUMBER  
04 ID 066 04228

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER X	5	ORGANIC - NET, BARTLETT, ILLINOIS INORGANIC - YORK LAB - MONROE, CT	AVAILABLE
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL X	6	ORGANIC - NET, BARTLETT, ILLINOIS INORGANIC - YORK LAB, MONROE, CT	AVAILABLE
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
ORGANIC VAPOR ANALYZER	SEE SECTION 5-4 AND 5-5 OF THE NARRATIVE
OXYGENMETER	
EXPLOSIOMETER	
HYDROGEN CYANIDE DETECTOR	
RADIATION METER	

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>ECOLOGY AND ENVIRONMENT, INC., CHICAGO, ILLINOIS</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>ECOLOGY AND ENVIRONMENT, INC., CHICAGO, ILLINOIS</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

SEE TABLE 3-1 AND 4-2 OF THE  
NARRATIVE

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT SSI, AUGUST 21 AND 22, 1990



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 7 - OWNER INFORMATION

I. IDENTIFICATION  
01 STATE 02 SITE NUMBER  
OH 066046228

II. CURRENT OWNER(S)				PARENT COMPANY (if applicable)			
01 NAME ALLIED SIGNAL, INC		02 D+B NUMBER UNKNOWN		08 NAME UNKNOWN		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 1600 N UNION STREET		04 SIC CODE UNKNOWN		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY FOSTORIA		06 STATE OH	07 ZIP CODE 44830	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
III. PREVIOUS OWNER(S) (List most recent first)				IV. REALTY OWNER(S) (if applicable; list most recent first)			
01 NAME BENDIX CORPORATION		02 D+B NUMBER		01 NAME UNKNOWN		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) UNKNOWN		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
01 NAME FORD MOTOR COMPANY		02 D+B NUMBER UNKNOWN		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) UNKNOWN		04 SIC CODE UNKNOWN		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, aerial photos, reports)

FIT SSI, AUGUST 21 AND 22, 1990  
DEPA FILE INFORMATION  
USEPA FILE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
04 D 066046228

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME  
AUTOLITE

02 D+8 NUMBER  
UNKNOWN

03 STREET ADDRESS (P.O. Box, RFD #, etc.)  
1600 N. UNION STREET

04 SIC CODE  
UNKNOWN

05 CITY  
FOSTORIA

06 STATE  
OH

07 ZIP CODE  
44830

OPERATOR'S PARENT COMPANY (if applicable)

10 NAME  
ALLIED SIGNAL

11 D+8 NUMBER  
UNKNOWN

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

14 CITY

15 STATE

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

01 NAME  
UNKNOWN

02 D+8 NUMBER

10 NAME  
UNKNOWN

11 D+8 NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

14 CITY

15 STATE

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER DURING THIS PERIOD

01 NAME

02 D+8 NUMBER

10 NAME

11 D+8 NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

14 CITY

15 STATE

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER DURING THIS PERIOD

01 NAME

02 D+8 NUMBER

10 NAME

11 D+8 NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)

04 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)

13 SIC CODE

05 CITY

06 STATE

07 ZIP CODE

14 CITY

15 STATE

16 ZIP CODE

08 YEARS OF OPERATION

09 NAME OF OWNER DURING THIS PERIOD

IV. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis, reports)

FIT SSI, August 21 & 22 1990  
U.S. EPA FILE INFORMATION  
DEPA FILE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D 066 04228

II. ON-SITE GENERATOR

01 NAME AUTOLITE	02 D+8 NUMBER UNKNOWN	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 1600 N. UNION STREET	04 SIC CODE UNKNOWN	
05 CITY FOSTORIA	06 STATE OH	07 ZIP CODE 44830

III. OFF-SITE GENERATOR(S)

01 NAME UNKNOWN	02 D+8 NUMBER UNKNOWN	01 NAME	02 D+8 NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+8 NUMBER	01 NAME	02 D+8 NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+8 NUMBER	01 NAME	02 D+8 NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+8 NUMBER	01 NAME	02 D+8 NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PT SSI, AUGUST 21 AND 22, 1990  
OEPA FILE INFORMATION  
U.S. EPA FILE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE 02 SITE NUMBER  
04D 066046228

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ D. SPILLED MATERIAL REMOVED  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ E. CONTAMINATED SOIL REMOVED  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ F. WASTE REPACKAGED  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ G. WASTE DISPOSED ELSEWHERE  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ H. ON SITE BURIAL  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ I. IN SITU CHEMICAL TREATMENT  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ J. IN SITU BIOLOGICAL TREATMENT  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ K. IN SITU PHYSICAL TREATMENT  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ L. ENCAPSULATION  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ M. EMERGENCY WASTE TREATMENT  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ N. CUTOFF WALLS  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ P. CUTOFF TRENCHES/SUMP  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ Q. SUBSURFACE CUTOFF WALL  
04 DESCRIPTION

N/A

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE 02 SITE NUMBER  
04 066046228

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ S. CAPPING/COVERING

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ T. BULK TANKAGE REPAIRED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ U. GROUT CURTAIN CONSTRUCTED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ V. BOTTOM SEALED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ W. GAS CONTROL

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ X. FIRE CONTROL

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ Y. LEACHATE TREATMENT

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ Z. AREA EVACUATED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ 1. ACCESS TO SITE RESTRICTED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ 2. POPULATION RELOCATED

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

N/A

01 ☐ 3. OTHER REMEDIAL ACTIVITIES

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

04 DESCRIPTION

NONE

III SOURCES OF INFORMATION (Check specific references, e.g., state files, sample analysis, reports)

FIT SSI, AUGUST 21 & 22, 1990  
OEPA FILE INFORMATION  
U.S. EPA FILE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 11 - ENFORCEMENT INFORMATION

L IDENTIFICATION

01 STATE 02 SITE NUMBER  
04 0066 046228

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

N/A

SEE SECTION 2-3 OF THE NARRATIVE

III. SOURCES OF INFORMATION (CER RESPONSE REFERENCES, D Q, STATE AQS, AIRPORT ANALYSIS, REPORTS)

O EPA FILE INFORMATION  
U.S. EPA FILE INFORMATION  
FIR SSI, AUGUST 21 AND 22, 1990

## APPENDIX C

### FIT SITE PHOTOGRAPHS

SITE NAME: BENDIX AUTOLITE CORPORATIONPAGE 1 OF 13U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: F0H0620SADATE: 8/22/90TIME: 1200DIRECTION OF  
PHOTOGRAPH:SOUTHWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
N/A

DESCRIPTION:



EAST SIDE OF THE MAIN BUILDING. THE CONCRETE  
AND ASPHALT PATHWAY IS BETWEEN BUILDING AND THE WATER TOWER

DATE: 8/21/90TIME: 1150DIRECTION OF  
PHOTOGRAPH:NORTHWESTWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
N/A

DESCRIPTION:

SOUTHWESTERN SIDE OF THE SITE.



SITE NAME: BENDIX AUTOLITE CORPORATION

PAGE 2 OF 13

U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: FOH0620SA

DATE: 8/21/90

TIME: 1155

DIRECTION OF  
PHOTOGRAPH:

SOUTHEAST

WEATHER

CONDITIONS:

OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

N/A



DESCRIPTION:

SOUTHWESTERN SIDE OF THE FACILITY

ONE PRODUCTION WELL (MW2) IS LOCATED INSIDE THIS BUILDING

DATE: 8/21/90

TIME: 1220

DIRECTION OF  
PHOTOGRAPH:

NORTH

WEATHER

CONDITIONS:

OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

N/A



DESCRIPTION:

WASTES STORED IN DRUMS. DRUMS ARE KEPT ON

CONCRETE FLOOR

SITE NAME: BENDIX AUTOLITE CORPORATIONPAGE 3 OF 13U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: FOH0620SADATE: 8/21/90TIME: 1320DIRECTION OF  
PHOTOGRAPH:NORTHWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
N/ADESCRIPTION: THE STORMWATER RETENSION POND. FENCING  
IS AROUND THE POND.DATE: 8/21/90TIME: 1321DIRECTION OF  
PHOTOGRAPH:  
NORTHWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
N/ADESCRIPTION: STORMWATER RETENSION POND

SITE NAME: BENDIX AUTOLITE CORPORATION

PAGE 4 OF 13

U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: FOH0620SA

DATE: 8/21/90

TIME: 1145

DIRECTION OF  
PHOTOGRAPH:

EAST

WEATHER  
CONDITIONS:  
OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:  
MATHEW JOSEPH

SAMPLE ID  
(if applicable):  
S1



DESCRIPTION: CLOSE UP OF SOIL SAMPLE (S1) LOCATION

DATE: 8/21/90

TIME: 1145

DIRECTION OF  
PHOTOGRAPH:

WEST

WEATHER  
CONDITIONS:  
OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:  
MATHEW JOSEPH

SAMPLE ID  
(if applicable):  
S1



DESCRIPTION: SOIL SAMPLE LOCATION • RAILWAY LINE AND  
OFF-SITE INDUSTRIAL BUILDING IN THE BACKGROUND

DATE: 8/21/90TIME: 1145DIRECTION OF  
PHOTOGRAPH:WEST

WEATHER

CONDITIONS:

OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

S1DESCRIPTION: SOIL SAMPLE (S1) LOCATION - SOUTHWEST SIDE  
OF THE MAIN BUILDING IN THE BACKGROUNDDATE: 8/21/90TIME: 1200DIRECTION OF  
PHOTOGRAPH:NORTH

WEATHER

CONDITIONS:

OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW

SAMPLE ID

(if applicable):

S2DESCRIPTION: CLOSE UP VIEW OF SOIL SAMPLE (S2) LOCATION

SITE NAME: BENDIX AUTOLITE CORPORATIONPAGE 6 OF 13U.S. EPA ID: OH066046228 TDD: FOS-9003-039 PAN: F0H0620SADATE: 8/21/90TIME: 1200DIRECTION OF  
PHOTOGRAPH:  
WESTWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
S2

DESCRIPTION:

PERSPECTIVE VIEW OF SOILSAMPLING (S2)LOCATIONDATE: 8/21/90TIME: 1200DIRECTION OF  
PHOTOGRAPH:  
WESTWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
S2

DESCRIPTION:

PERSPECTIVE VIEW OF SOIL SAMPLESOUTHSIDE OF THE FACILITY IN THE BACKGROUND

SITE NAME: BENDIX AUTOLITE CORPORATION

PAGE 7 OF 13

U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: F0H0620SA

DATE: 8/21/90

TIME: 1215

DIRECTION OF  
PHOTOGRAPH:

EAST

WEATHER

CONDITIONS:

OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

S3



DESCRIPTION: CLOSE UP VIEW OF SOIL SAMPLE

LOCATION S3.

DATE: 8/21/90

TIME: 1215

DIRECTION OF  
PHOTOGRAPH:

SOUTH

WEATHER

CONDITIONS:

OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

S3



DESCRIPTION: PERSPECTIVE VIEW OF SOIL SAMPLE (S3)

LOCATION. PROPANE TANK AREA IN THE BACKGROUND

DATE: 8/21/90

TIME: 1250

DIRECTION OF  
PHOTOGRAPH:

EAST

WEATHER  
CONDITIONS:

OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):

S4

DESCRIPTION:

CLOSE UP VIEW OF SOIL SAMPLE LOCATION S4



DATE: 8/21/90

TIME: 1250

DIRECTION OF  
PHOTOGRAPH:

South

WEATHER  
CONDITIONS:

OVERCAST, RAINY

MID 70°F

PHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):

S4

DESCRIPTION:

PERSPECTIVE VIEW OF SOIL SAMPLE LOCATION S4



SITE NAME: BENDIX AUTOLITE CORPORATIONPAGE 9 OF 13U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: FOH0620SADATE: 8/21/90TIME: 1250DIRECTION OF  
PHOTOGRAPH:  
WESTWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
S4DESCRIPTION: PERSPECTIVE OF SOIL SAMPLE LOCATION S4DATE: 8/21/90TIME: 1315DIRECTION OF  
PHOTOGRAPH:  
NORTHWESTWEATHER  
CONDITIONS:  
OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
S5DESCRIPTION: CLOSE UP VIEW OF SOIL SAMPLE LOCATION S5

DATE: 8/21/90TIME: 1315DIRECTION OF  
PHOTOGRAPH:NORTHWEST

WEATHER

CONDITIONS:

OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

S5DESCRIPTION: PERSPECTIVE VIEW OF SOIL SAMPLE LOCATION S5FACILITY'S NORTH SIDE PARKING SIDE IN THE BACKGROUNDDATE: 8/21/90TIME: 1315DIRECTION OF  
PHOTOGRAPH:WEST

WEATHER

CONDITIONS:

OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

S5DESCRIPTION: PERSPECTIVE VIEW OF SOIL SAMPLE LOCATION S5NORTHEAST CORNER OF THE MAIN BUILDING IN THE  
BACKGROUND

U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: F0H0620SADATE: 8/22/90TIME: 1115DIRECTION OF  
PHOTOGRAPH:EASTWEATHER  
CONDITIONS:OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
MW3DESCRIPTION: MONITORING WELL SAMPLE LOCATION (MW3)DATE: 8/22/90TIME: 1115DIRECTION OF  
PHOTOGRAPH:  
NORTHWEATHER  
CONDITIONS:OVERCAST, RAINYMID 70°FPHOTOGRAPHED BY:  
MATHEW JOSEPHSAMPLE ID  
(if applicable):  
MW3DESCRIPTION: PERSPECTIVE VIEW MW3 LOCATION

U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: F0H0620SADATE: 8/24/90TIME: 1230DIRECTION OF  
PHOTOGRAPH:EAST

WEATHER

CONDITIONS:

OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

MW4

DESCRIPTION:

CLOSE UP VIEW OF MONITORING WELL SAMPLING (MW4)  
LOCATIONDATE: 8/24/90TIME: 1230DIRECTION OF  
PHOTOGRAPH:WEST

WEATHER

CONDITIONS:

OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

MW4

DESCRIPTION:

PERSPECTIVE VIEW OF MONITORING WELL (MW4)LOCATION.

SITE NAME: BENDIX AUTOLITE CORPORATIONPAGE 13 OF 13U.S. EPA ID: OH066046228 TDD: F05-9003-039 PAN: F0H0620SADATE: 8/22/90TIME: 1250DIRECTION OF  
PHOTOGRAPH:NORTHWEATHER  
CONDITIONS:OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

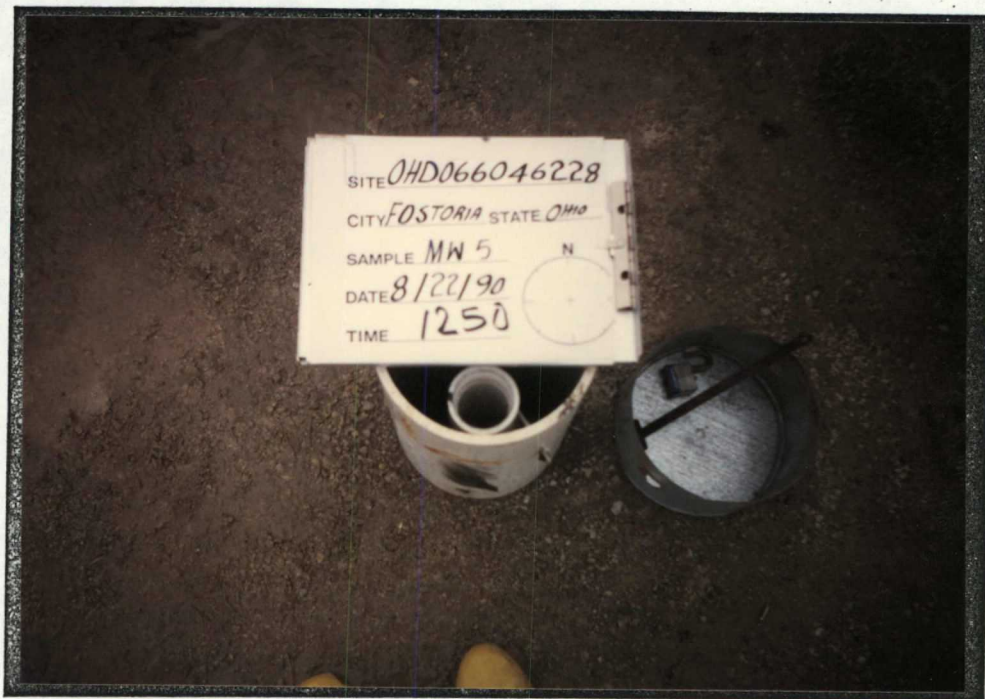
MATHEW JOSEPH

SAMPLE ID

(if applicable):

MW5

DESCRIPTION:

CLOSE UP VIEW OF MONITORING WELL (MW5)DATE: 8/22/90TIME: 1250DIRECTION OF  
PHOTOGRAPH:NORTHWESTWEATHER  
CONDITIONS:OVERCAST, RAINYMID 70°F

PHOTOGRAPHED BY:

MATHEW JOSEPH

SAMPLE ID

(if applicable):

MW5

DESCRIPTION:

PERSPECTIVE VIEW OF MONITORING WELL (MW5)

APPENDIX D

U.S. EPA TARGET COMPOUND LIST AND  
TARGET ANALYTE LIST  
QUANTITATION/DETECTION LIMITS

ADDENDUM A

ROUTINE ANALYTICAL SERVICES  
CONTRACT REQUIRED DETECTION AND QUANTITATION LIMITS

Contract Laboratory Program  
Target Compound List  
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Tolene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	5

Table A  
Contract Laboratory Program  
Target Compound List  
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A  
Contract Laboratory Program  
Target Compound List  
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A  
Contract Laboratory Program  
Target Compound List  
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Methoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Table A (Cont.)

CONTRACT LABORATORY PROGRAM  
 TARGET ANALYTE LIST (TAL)  
 INORGANIC DETECTION LIMITS

Compound	Procedure	Detection Limits	
		Water (µg/L)	Soil Sediment Sludge (mg/kg)
aluminum	ICP	200	40
antimony	furnace	60	2.4
arsenic	furnace	10	2
barium	ICP	200	40
beryllium	ICP	5	1
cadmium	ICP	5	1
calcium	ICP	5,000	1,000
chromium	ICP	10	2
cobalt	ICP	50	10
copper	ICP	25	5
iron	ICP	100	20
lead	furnace	5	1
magnesium	ICP	5,000	1,000
manganese	ICP	15	3
mercury	cold vapor	0.2	0.008
nickel	ICP	40	8
potassium	ICP	5,000	1,000
selenium	furnace	5	1
silver	ICP	10	2
sodium	ICP	5,000	1,000
thallium	furnace	10	2
tin	ICP	40	8
vanadium	ICP	50	10
zinc	ICP	20	4
cyanide	color	10	2

3767:1

## APPENDIX E

### WELL LOGS OF THE AREA OF THE SITE

## WELL LOG AND DRILLING REPORT

W1

ORIGINAL

State of Ohio  
OHIO WATER RESOURCES BOARD  
Department of Public Works  
553 E. Broad St., Columbus 15, Ohio

No 71638

County SENECA Township JACKSON Section of Township or Lot Number 30  
Owner ROBERT FRY Address FOSTORIA  
Location of property N. UNION ST. FOSTORIA, O

## CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 25  
Type of screen \_\_\_\_\_ Length of screen \_\_\_\_\_  
Type of pump \_\_\_\_\_  
Capacity of pump \_\_\_\_\_  
Depth of pump setting \_\_\_\_\_

## PUMPING TEST

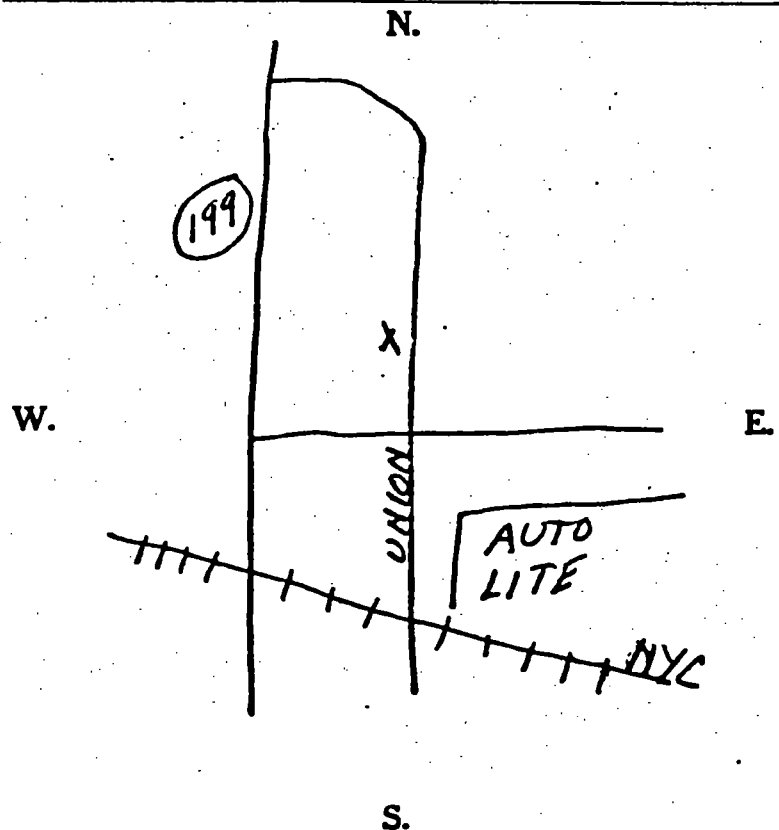
Pumping rate \_\_\_\_\_ G.P.M. Duration of test \_\_\_\_\_ hrs.  
Drawdown \_\_\_\_\_ ft. Date \_\_\_\_\_  
Developed capacity \_\_\_\_\_  
Static level of completed well 35 ft.  
Pump installed by \_\_\_\_\_

## WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>CLAY</u>	<u>0 Feet</u>	<u>6 Ft.</u>
<u>LIMESTONE</u>	<u>6</u>	<u>79</u>

## SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm PARMENTER DRILLING CO Date 5-3-50  
Address FOSTORIA, O Signed \_\_\_\_\_

1747450

State of Ohio  
OHIO WATER RESOURCES BOARD  
Department of Public Works  
553 E. Broad St., Columbus 15, Ohio

N<sup>o</sup> 30475

County Seneca Township Jackson Section of Township or Lot Number 30  
Owner Melvin Baxter Address W. Tiffin St., Fostoria  
Location of property East side of North Union Road, just outside north Fostoria Corporation limit.

## CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 25'  
Type of screen - Length of screen -  
Type of pump X  
Capacity of pump -  
Depth of pump setting -

## PUMPING TEST

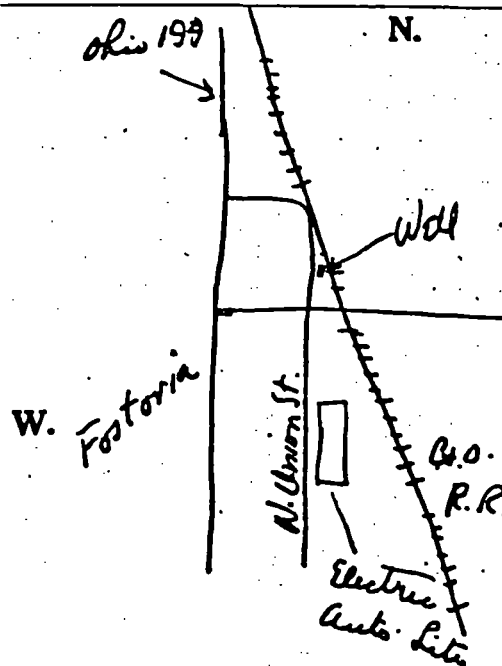
Pumping rate 21 G.P.M. Duration of test 2 hrs.  
Drawdown 5 ft. Date August 25, 1950  
Developed capacity 1260 g.p.h.  
Static level of completed well 9 ft.  
Pump installed by -

## WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	— Ft.
<u>Superior</u>	<u>0</u>	<u>5</u>
<u>Limestone</u>	<u>5</u>	<u>59</u>
<u>Total Depth</u>	<u>59 feet</u>	

## SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



S.  
See reverse side for instructions

Drilling Firm

Melvin Good  
Fostoria, Ohio

Date

August 25, 1950

Signed

Melvin Good

State of Ohio  
DEPARTMENT OF NATURAL RESOURCES  
Division of Water  
Columbus, Ohio

No 85703

County SENECA Township JACKSON Section of Township or Lot Number 30

Owner BUD JURRUS Address N. UNION FOSTORIA

Location of property ON N. UNION 500' PAST INTERSECTION  
N. UNION AND NORTH ROAD BORDING AUTO-LITE

CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 25  
Type of screen \_\_\_\_\_ Length of screen \_\_\_\_\_  
Type of pump \_\_\_\_\_  
Capacity of pump \_\_\_\_\_  
Depth of pump setting \_\_\_\_\_

PUMPING TEST

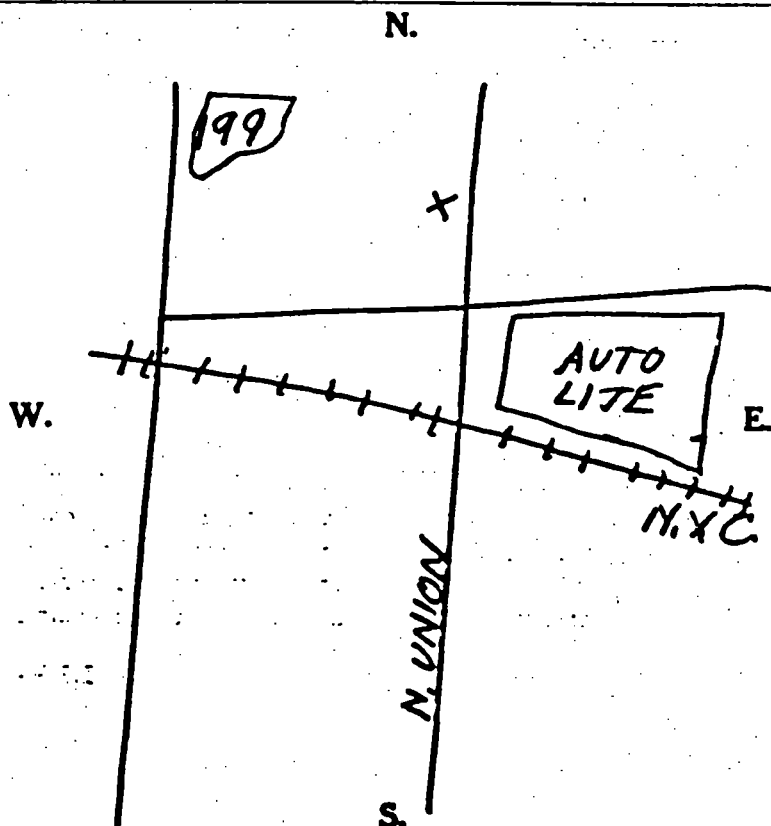
Pumping rate \_\_\_\_\_ G.P.M. Duration of test \_\_\_\_\_ hrs.  
Drawdown \_\_\_\_\_ ft. Date \_\_\_\_\_  
Developed capacity \_\_\_\_\_  
Static level—depth to water \_\_\_\_\_ ft.  
Pump installed by \_\_\_\_\_

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>CLAY</u>	<u>0 Feet</u>	<u>5 Ft.</u>
<u>LIMESTONE</u>	<u>5</u>	<u>70</u>

SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Parmenter Drilling Co  
Address Fostoria

Date 7-5-2  
Signed E. Parmenter

## DEPARTMENT OF NATURAL RESOURCES

Division of Water

1500 Dublin Road

Columbus, Ohio

W4

No. 194264

County Seneca Township Jackson Section of Township 31  
 Owner Elden Good Address 957 N. Union Street  
 Location of property Fifth house south of Culbertson St on Union West side

## CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 42  
 Type of screen - Length of screen -  
 Type of pump Pressure pump  
 Capacity of pump 260 g.p.h.  
 Depth of pump setting 50 feet  
 Date of completion July 19, 1958

## BAILING OR PUMPING TEST

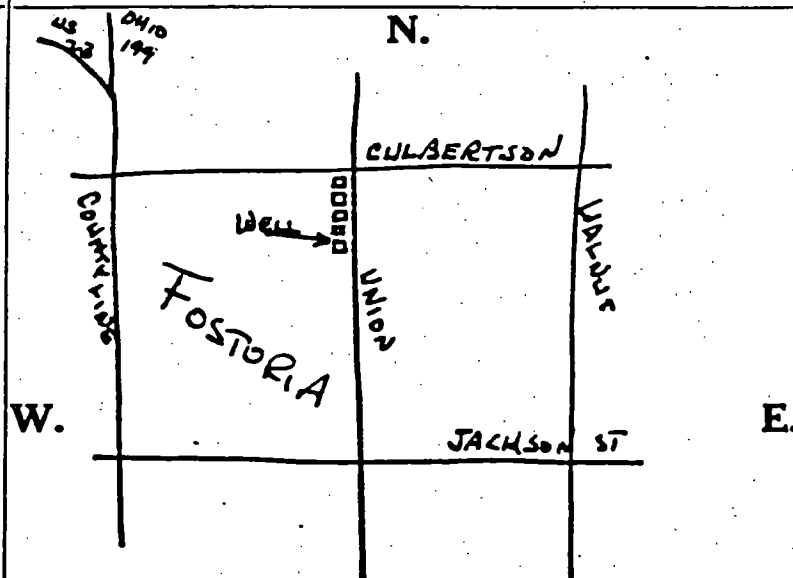
Pumping rate 10 1/2 G.P.M. Duration of test 2 1/2 hrs.  
 Drawdown 21 ft. Date July 19, 1958  
 Developed capacity 850 g.p.h.  
 Static level—depth to water 24 ft.  
 Pump installed by owner

## WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	_____ Ft.
<u>Topsoil, Clay</u>	<u>0</u>	<u>8</u>
<u>Limestone</u>	<u>8</u>	<u>90</u>
<u>Depth</u>	<u>90 feet</u>	

## SKETCH SHOWING LOCATION

Locate in reference to numbered  
State Highways, St. Intersections, County roads, etc.



S.

See reverse side for instructions

Drilling Firm Melvin GoodAddress Fostoria, OhioDate Nov 17, 1958Signed Melvin Good

MW,

B<sub>1</sub>

## Well Log

## Dunbar Drilling and Supply Company

DELTA, OHIO

Customer The Electric Auto-Lite  
 Address Postoria, Ohio  
 Job Name same (Spark Plug Division)  
 Location Postoria, Ohio  
 Well No. B-1

Strainer: Overall Length 52" Dia. ... Ft. of Slot ...

Slot Size No. ... Fittings ...

Mfd. By ... Material ...

Pipe: No. Ft. 24 1/2 Size 8 Wt. 29 lb. Type Drive

No. Ft. ... Size ... Wt. ... lb. Type ...

No. Ft. ... Size ... Wt. ... lb. Type ...

Drive Shoe: Size 8 Size ... Size ...

Static Water Level 14 Ft. Completed depth of well 295 ft.

Surging and Developing: Total Time ... Hrs.

GPM	PUMPING LEVEL	LENGTH OF TEST	TEMPERATURE
250	55 Ft.	1 1/2 Hrs.	°F.
	Ft.	Hrs.	°F.
	Ft.	Hrs.	°F.
	Ft.	Hrs.	°F.

REMARKS: 3 1/2' to rock 10" hole drilled to 23 1/2'. Pipe 1' above ground

Date Started November 2, 1951 Date Completed November 25, 1951

DRILLER HELPER HELPER

Eldon Parsons Neil Britner

ELECTRIC AUTO-LITE CO.

$\beta_1$ 

## Weil Log

[illegible]

REMARKS:

MW2

Well Log

Dunbar Drilling and Supply Company

DELTA, OHIO

Customer The Electric Auto-Lite Company

Address Fostoria, Ohio

Job Name Spark Plug Division

Location North Union Street - Fostoria, Ohio

Well No. B-2

Strainer: Overall Length None Dia.        Ft. of Slot       

Slot Size No.        Fittings       

Mfd. By        Material       

Pipe: No. Ft. 56 Size 10 " Wt. 34.24 lb. Type P.D. (A)

No. Ft.        Size        " Wt.        lb. Type       

No. Ft.        Size        " Wt.        lb. Type       

Drive Shoe: Size None " Size        " Size       

Static Water Level 12 Ft. Completed depth of well 300 ft.

Surging and Developing: Total Time        Hrs.

GPM	PUMPING LEVEL	LENGTH OF TEST	TEMPERATURE
<u>250</u>	<u>30</u> Ft.	<u>1 1/2</u> Hrs.	<u>      </u> °F.
<u>400</u>	<u>52</u> Ft.	<u>1/2</u> Hrs.	<u>      </u> °F.
<u>150</u>	<u>22</u> Ft.	<u>1/2</u> Hrs.	<u>      </u> °F.
<u>      </u>	<u>      </u> Ft.	<u>      </u> Hrs.	<u>      </u> °F.

REMARKS: (a) Casing is cemented in.

Date Started December 27, 1952 Date Completed February 4, 1953

DRILLER

HELPER

HELPER

Ralph Br. Bond Maurice Weeks

ELECTRIC AUTO LITE CO.





## TEST BORING LOG

No.

SHEET OF

TB-2 1 1

PROJECT Fostoria, Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. 40601

DRILLING

GROUNDWATER LEVELS

Completion  
Diagram

CONTR. H.C. Nutting

REMARKS

DATE

TIME

DEPTH

DATE START 10-9-84

DATE FINISH 10-9-84

TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
2					Limestone fill	Hole advanced with hollow- stem auger, samples were taken with 2" split spoon sampler.	
4	Ss	1			Brown sand, fill		
6	Ss	2	100	4"	Limestone fill	Bottom of hole, 6.5'	
					Dolomite		

Well Completion: 4" PVC Blank set at Dolomite/limestone fill interface.  
Seal from interface to surface with Bentonite-cement  
grout.

DEPTH

0

5

10

15

20

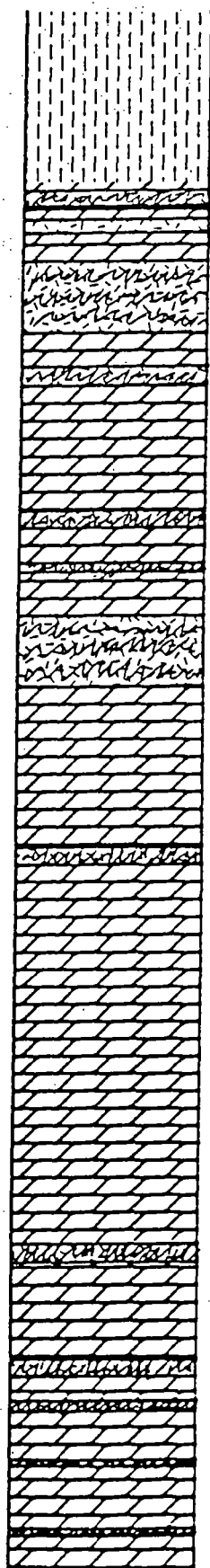
25

30

35

40

45



## LEGEND:



CLAYEY SILT

FRACTURE/SOLUTION  
CHANNEL ZONE

DOLOMITE

Brown clayey silt, minor sand

Fracture/solution channel zone.  
Brown clay in vugs.Single horizontal fractures spaced 3" apart.  
Some fracture faces crystal-lined.  
1"-2" vugs along fractures.Iron stained fracture faces, rounded clasts in  
fracture zone.Fracture/solution channel zone, loose friable  
pieces, iron stained, some crystal coated rock faces.Single horizontal fractures spaced 2"-6" apart,  
minor short vertical fractures, 1"-2" vugs  
associated with fractures.

Fracture /solution channel zone.

Single horizontal fractures spaced 2"-8" apart,  
some iron stained, some crystal coated 2"  
irregular solution cavities associated with  
fractures.

Fracture/solution channel zone, loose rounded clasts.

ALLIED AUTOMOTIVE  
FOSTORIA, OHIOFIGURE A-9  
TEST BORING 1  
CORE LOG

PROJ. # 41202

MAY 17, 1985

T A GLEASON ASSOCIATES

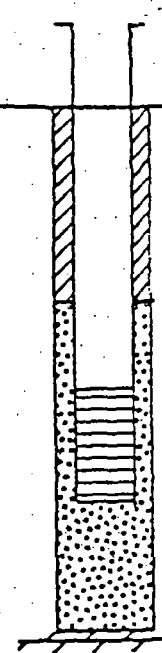
TA GLEASON ASSOCIATES Environmental and Geotechnical Services		TEST BORING LOG				No.	SHEET	OF
						TB-3	1	1
PROJECT Fostoria, Groundwater Investigations						Completion Diagram		
CLIENT Allied Automotive				PROJECT No. 40601				
DRILLING CONTR. H.C. Nutting		GROUNDWATER LEVELS						
DATE START 10-9-84		REMARKS	DATE	TIME	DEPTH			
DATE FINISH 10-9-84								
TAG REP. C. Coe								
DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION	
2	Auger	1			Asphalt Paving	Hole advanced with 6" hollow stem auger, and samples were taken with 2" split spoon sampler.		
4					Brown sand, Little silt and clay fill			
6	Auger	2			Light brown weathered dolomite aggregate			
8								
Well Completion: 1 1/2" Dia. PVC casing set at 4.3'. 2" Dia. 0.01 slot PVC screen. Annulus sealed with Bentonite-cement grout.								

FIGURE A-11

FOR INTERPRETATION OF SOIL, ROCK AND GROUNDWATER CONDITIONS, SEE TEXT OF REPORT, OF WHICH THIS LOG IS A PART.



## TEST BORING LOG

No.

SHEET OF

TB-4

1 1

PROJECT F. Stori Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. 40001

DRILLING

GROUNDWATER LEVELS

Completion  
Diagram

CONTR. H.C. Nuttin

REMARKS

DATE

TIME

DEPTH

DATE START 10-9-84

DATE FINISH 10-9-84

TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
2					Fill, Brown silt, some clay, Little sand.	Hole advanced with 6" hollow stem auger, and samples were taken with 2" split spoon sampler.	
4	Ss	1					
6	Ss	2					
8					Limestone fill		
10	Ss	3					
12							
					Dolomite	Bottom of hole, 12.5'.	

Well completion: 4" PVC blank set at Dolomite/limestone fill interface.  
Seal from interface to surface with Bentonite-cement grout.



## TEST BORING LOG

No.

SHEET OF

TB-5

1

1

PROJECT Fostoria Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. 40601

DRILLING

GROUNDWATER LEVELS

Completion  
Diagram

CONTR. H.C. Nutting

REMARKS

DATE

TIME

DEPTH

DATE START 10-10-84

DATE FINISH 10-1-84

TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
					Concrete		
2					Fill, Brown silt, Little sand and clay	Hole advanced with 6" hollow stem auger, and samples were taken with 2" split spoon sampler	
4	Ss	1					
6	Ss	2					
8	Ss	3			Limestone fill		
		3A					
10	Ss				Dolomite	Bottom of hole, 10.0'	

Well Completion: 4" PVC blank set at Dolomite/limestone fill interface.  
Seal from interface to surface with Bentonite-cement  
grout.



# TEST BORING LOG

No.

SHEET OF

TB-6

1 1

PROJECT Fostoria Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. 40601

Completion  
Diagram

DRILLING GROUNDWATER LEVELS  
CONTR. H.C. Nutting REMARKS DATE TIME DEPTH  
DATE START 10-10-84  
DATE FINISH 10-10-84  
TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
2		1			Till, Brown sand, some silt Little clay	Hole advanced with 6" hollow stem auger, and samples were taken with 2" split spoon sampler	
4		2			Weathered dolomite	Bottom of hole, 5.5'	
					Dolomite		

Well Completion: 4" PVC blank set at Dolomite/limestone fill interface.  
Seal from interface to surface with Bentonite-cement  
grout.

FIGURE A-14



## TEST BORING LOG

No.

SHEET OF

TB-7

1

1

PROJECT Fostoria, Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. U601

Completion  
Diagram

DRILLING

GROUNDWATER LEVELS

CONTR. H.C. Nuttin

REMARKS

DATE

TIME

DEPTH

DATE START 10-10-84

DATE FINISH 10-10-84

TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
	Ss	1			Dark gray clay	Hole advanced with 6" hollow stem auger, and samples were taken with 2" split spoon sampler.	
2							
	Ss	2			Mottled gray to rust clay, little silt, trace of sand and gravel		
4							
	Ss	3					
6							
	Ss	4			Dark gray clay, little silt, trace of sand and gravel		
8							
					Dolomite	Bottom of hole, 9'	

Well completion: 4" PVC blank set at Dolomite/limestone fill interface.  
Seal from interface to surface with Bentonite-cement  
grout.



## TEST BORING LOG

No.

SHEET OF

TB-7A

1

1

PROJECT Fostoria. Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. 40601

Completion  
Diagram

DRILLING

GROUNDWATER LEVELS

CONTR. H.C. Nutting

REMARKS

DATE

TIME

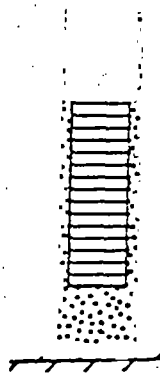
DEPTH

DATE START 10-10-84

DATE FINISH 10-10-84

TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
2		1			Till, clay, little silt, trace of sand and gravel	Hole advanced with 6" hollow stem auger, and samples were taken with 2" split spoon sampler	
4	Ss						
6	Ss	2					
8					Dolomite	Bottom of hole, 8.2'	



Well Completion: 1 1/2" Dia. PVC casing set at 4.3'.  
 2" Dia. 0.01 slot PVC screen.  
 Annulus sealed with Bentonite-cement grout.



## TEST BORING LOG

No.

SHEET OF

TB-8

1

PROJECT Fostoria. Groundwater Investigations

CLIENT Allied Automotive

PROJECT No. 40601

DRILLING

GROUNDWATER LEVELS

Completion  
Diagram

CONTR. H.C. Nutting

REMARKS

DATE

TIME

DEPTH

DATE START 10-10-84

DATE FINISH 10-10-84

TAG REP. C. Coe

DEPTH (FEET)	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNT	SYMBOL	DESCRIPTION	REMARKS	SURFACE ELEVATION
2	Ss	1			Dark gray silt, little sand, trace of gravel	Hole advanced with hollow stem auger, and samples were taken with 2" split spoon sampler	
4	Ss	2			Brown silt, little sand and clay		
6	Ss	3			Dark gray sand, littl silt and clay	Bottom of hole, 6.1'	
					Dolomite		

Well Completion: 4" PVC blank set at Dolomite/limestone fill interfac  
Seal from interface to surface with Bentonite-cement  
grout.

# KECK CONSULTING SERVICES, INC.

PROJECT: #0036-1655 Roppe Rubber

WELL/BORING No: MW-6

LOCATION: Fostoria, OH

DATE DRILLED: January 16, 1987

DRILLING METHOD: Air Rotary

CASING TYPE/DIA: <sup>surface casing</sup> 6 3/8-inch stainless steel

TOTAL DEPTH DRILLED: 198.4 feet BGL

TOTAL CASING: 15 feet

GROUND ELEVATION: 766.04 feet

T.O.C. ELEVATION: 767.69 feet

GROUT TYPE/QUANTITY: neat cement/bentonite

SCREEN TYPE/LENGTH: uncased below 13.35 feet

GROUT INTERVAL(S): 0 - 13.35 feet BGL

SCREENED INTERVAL:

DEPTH TO WATER: approx. 21 feet

GRAVEL PACK TYPE:

WATER LEVEL ELEVATION:

GRAVEL PACK INTERVAL:

STATIC WATER LEVEL:

DATE:

REMARKS: Drilled by Sever Well Drilling, Delphos, Ohio

LOGGED BY: Stephen Manz

SIGNATURE:

DEPTH	H <sub>2</sub> O/SOIL SAMPLE	FORMATION DESCRIPTION
0-8		CLAY; brown, cohesive, intermixed w/gravel fill
8-23		DOLOMITE; sparry, tan, saturated at 21'
23-43		AS ABOVE; very little water production, tan-gray, penetration = 1.3 ft/min
43-63		DOLOMITE; tan at 45 feet, very low from 62-63 feet, penetration = 2 ft/min
63-78		DOLOMITE; sparry, tan-brown, penetration = 1.36 ft/min
78-93		AS ABOVE; penetration = 1.9 ft/min
93-108		AS ABOVE; w/yellow calcite crystal, penetration = 1.9 ft/min
108-123		DOLOMITE; sparry, gray, penetration = 0.9 ft/min
123-138		DOLOMITE; sparry, gradually tanning, penetration = 1.2 ft/min
138-153		DOLOMITE; gray-tan, sparry, penetration = 1.1 ft/min
153-169		AS ABOVE; penetration = 1.5 ft/min
169-184		DOLOMITE; tan, sparry, penetration = 1.5 ft/min
184-199		DOLOMITE; white-gray, sparry, penetration = 1.25 ft/min

# BORING

KECK CONSULTING SERVICES, INC.

PROJECT: #0036-1655 Roppe Rubber

WELL/BORING No.: MW-5

LOCATION: Fostoria, OH

DATE DRILLED: January 15, 1987

DRILLING METHOD: Air Rotary

CASING TYPE/DIA: surface casing  
6 3/8-inch stainless steel

TOTAL DEPTH DRILLED: 200 feet BGL

TOTAL CASING: 15 feet

GROUND ELEVATION: 764.43 feet

T.O.C. ELEVATION: 765.95 feet

GROUT TYPE/QUANTITY: neat cement/bentonite

SCREEN TYPE/LENGTH: uncased below 13.5 feet

GROUT INTERVAL(S): 0 - 14 feet BGL

SCREENED INTERVAL:

DEPTH TO WATER: approx. 16.1 feet BGL

GRAVEL PACK TYPE:

WATER LEVEL ELEVATION:

GRAVEL PACK INTERVAL:

STATIC WATER LEVEL:

DATE:

REMARKS: Drilled by Sever Well Drilling, Delphos, Ohio

LOGGED BY: Stephen Manz

SIGNATURE:

DEPTH	H <sub>2</sub> O/SOIL SAMPLE	FORMATION DESCRIPTION
0-2.5		CLAY; brown, cohesive, moist
2.5-24		DOLOMITE; sparry, buff-gray, porous, saturated at 16'
24-55		DOLOMITE; high water production, voids, 1-inch drops at 51 feet, chert nodules from 50 feet
55-64		DOLOMITE; as above, very loose from 58-61 ft. penetration = 2 ft/min
64-140		DOLOMITE; becoming denser, penetration = 1 ft/min, gray-tan, sparry, soft from 134-135 feet
140-155		DOLOMITE; sparry, lt. brown, iron colored water
155-170		DOLOMITE; s . , becoming white at 160 feet. penetration = 0.8 ft/min
170-185		DOLOMITE; s . , -white, penetration = 1.5 ft/min
185-200		DOLOMITE; s . , gray-white to 190 feet. tan from 190-200 feet

**ING WEL**  
**KECK CONSULTING SERVICES, INC.**

PROJECT: #0036-1655 Roppe Rubber

WELL/BORING No. MW-4

LOCATION: Fostoria, OH

DATE DRILLED: January 15&16, 1987

DILLING METHOD: Air Rotary

CASING TYPE/DIA: surface casing  
6 3/8-inch stainless steel

TOTAL DEPTH DRILLED: 197 feet BGL

TOTAL CASING: 15 feet

GROUND ELEVATION: 762.62 feet

T.O.C. ELEVATION: 765.54 feet

GROUT TYPE/QUANTITY: neat cement/bentonite

SCREEN TYPE/LENGTH: uncased below 12 feet

GROUT INTERVAL(S): ground level - 12 feet BGL

SCREENED INTERVAL:

DEPTH TO WATER: approx. 17.5 feet BGL

GRAVEL PACK TYPE:

WATER LEVEL ELEVATION:

GRAVEL PACK INTERVAL:

STATIC WATER LEVEL:

DATE:

REMARKS: Drilled by Sever Well Drillers, Delphos, Ohio

LOGGED BY: Stephen Manz

SIGNATURE:

DEPTH	H2O/SOIL SAMPLE	FORMATION DESCRIPTION
0-0.25		ASPHALT
0.25-1		CLAY; black, moist, cohesive
1-2.5		CLAY; brown, cohesive, moist
2.5-24		DOLOMITE; gray, porous, sparite, penetration = 2 ft/min, sat. at 17'
24-55		AS ABOVE; beige colored water
55-64		DOLOMITE; very loose. drill rod drc from 55-57 feet with resistance, grayish dolomite, reddish chert nodules from 55 feet
64-79		DOLOMITE; sparry, gray, becoming tan at 70 feet, penetration = 1.5 ft/min
79-94		DOLOMITE; sparry, tan-lt. gray at 78 feet
94-110		DOLOMITE; gray, sparry, brown clay seam at 94 feet, penetration = 1.5 ft/min
110-125		DOLOMITE; sparry, gray, penetration = 1 ft/min
125-140		DOLOMITE; sparry, lt. gray-lt. brown, porous, penetration = 0.8 ft/min
140-155		DOLOMITE; sparry, lt. brown from 140-145 feet, turning white-tan at 145 feet, penetration = 0.9 ft/min
155-170		DOLOMITE; sparry, white-tan
170-198		DOLOMITE; sparry, gray-white, easier drilling at 170 feet, pene- tration = 1 ft/min